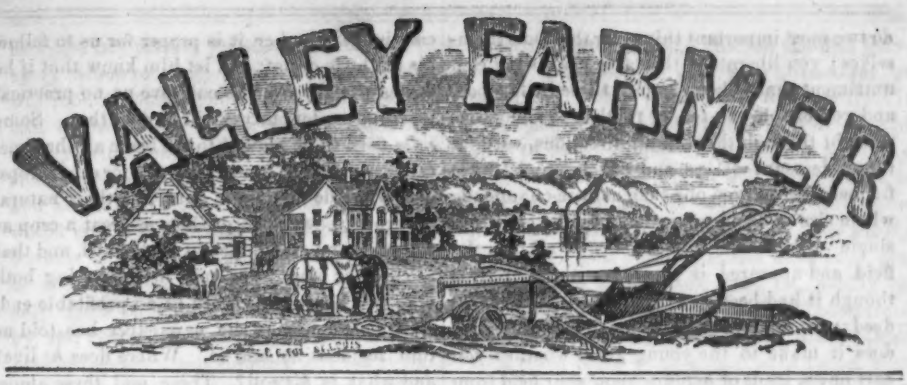



NORMAN J. COLMAN, EDITOR. BENJ. BRYAN, PUBLISHER.

VOL. XIV. ST. LOUIS, MO., SEPTEMBER, 1862. NO. 9.

THE VALLEY FARMER,

AN AGRICULTURAL, HORTICULTURAL AND STOCK JOURNAL,

PUBLISHED ON THE FIRST OF EACH MONTH, AT No. 97 Chesnut Street,

SAINT LOUIS, MO.

TERMS (always in advance), 1 copy, one year, $1 00; 4 copies, $3 00; and any greater number at the same rate—only 75 cents per copy.

☞ Any one sending Two NEW Subscribers and Two Dollars, shall receive a copy one year GRATIS, as a Premium. Remittances at our risk.

Advertisements—$15 00 per page; $10 00 per half page; and $2 00 per square, each insertion.

ADDRESS, BENJ. BRYAN, PUBLISHER, 97 Chesnut St., Saint Louis, Mo.

From the Journal of the Ills. State Agr'l. Society.

## Essay on the Cultivation of Field Crops and Preparation of Soils.

BY J. B. TURNER, JACKSONVILLE, ILLINOIS.

(Continued from August No.)

II. The *whole mass* of earth stirred by the plow may be *too deep or too shallow, too coarse or too loose, too soft or too hard.*

This whole mass of earth thus stirred by the plow, effects two ends: *First*, it furnishes a proper prepared nidus for the rootlets of young plants to run in and seek their food while the plant is still young and tender, and its roots extend but a short distance from their starting point. *Second*, it increases the absorptions and attractions from the air above, and from the sub-soil below as already explained.

The importance of a proper *nidus* for the tender roots of the young plant will more clearly appear if we consider that the inherent power of the root increases nearly as the square of its distance from the centre, and not simply as the distance; hence when a young root has extended outwards in all directions twelve inches, it has an inherent power represented by 144, while its inherent power when extended only two inches is represented only by four. The importance, therefore, of a well prepared nidus, and of frequent and close cultivation near to the roots of all young plants, in order to help them, and nurse them in their start, is well represented by the instinctive care of the mother bird for her young ones, or the care with which you hold your hand before the lamp just lighted, lest the flickering flame should go out: and more can ordinarily be done for a corn crop before it is six inches high than ever can be done afterwards. So far as this nidus is concerned, it should be remarked that all uncrushed clods or hard lumps of earth, even if not bigger than a pea, are of no more use to the roots of a young plant than so many gravel stones. They cannot penetrate them or do any thing with them; for a young and tender root can neither grow in these clods or lumps, nor in the vacant air holes around them; the consequence is that the rootlets start to grow in one direction and meet a clod at which they must stop and take time to make an offset and shoot off in some other direction to avoid it; there again they soon meet an air-hole or another clod, and must again haul up and start anew. Thus the struggling rootlets are balked and repulsed on all sides, turning hither and thither, as freezing birds turn over in a cold nest, stretching up their bills in vain for food, till many precious hours of the early spring are past, before they can get any proper hold of the soil around them. Go along now and crush these little clods and their attendant air holes all together into a fine and suitable mass, and you

do two most important things for the roots themselves; you liberate to their free use all the rich nutriment that is bound up in those little clods, and you enable the tender rootlets to shoot out straight through them in all directions, without these incessant delays and offsets—and I have frequently seen even one such culture change the whole size and look of a row of young corn in a single week, so that it could be seen all over the field, and appeared in contrast with the rest as though it had been heavily manured, which indeed was really the fact, for what difference does it make to the young grain whether you cart on *ten* loads of manure upon your field from abroad, or crush up and liberate, and put to its proper uses, *twenty* loads that are already there, at the same time that you take these other obstacles to the young roots out of their way.

*Second*—But this effect of the proper fineness of the mass of the plowed soil, by crushing or otherwise, great as it evidently is, is not its only effect. It also increases and facilitates in an equal degree all those absorptions from the air above, and those attractions from the sub-soil below, of which we have spoken above; and thus again sets all those vast circuits and economies of the sun, the earth, the ocean and the air into harmonious co-operation with the rejoicing farmer and his triumphant plow.

The mass of the earth thus stirred may be too *deep* or too *shallow*. In soils like our rich black prairies, which abound in *humus*, which has a great absorbing power, if the farmer wishes to raise wheat or oats, if he plows or stirs it too deeply, he will so increase its absorbent and prolific power that his wheat or oats will all run to straw, as they say; that is, they will grow too large in the forepart of the season, and fall down or blight before the time of ripening; so, every where in nature we may have too much of a good thing; too much learning has made many a man mad, though it did not make Paul so; and thus, too much or too deep plowing will sometimes defeat the end of all plowing. God pre-supposes that every man will have common sense and adjust all his methods and all his processes to the particular end he has in view, or the particular crop and the particular soil he has to cultivate. Hence, when a man on our barrens writes or says that deep plowing is the best in all cases, even for wheat and oats, the man on the prairie need not run mad, and stick his plow in up to the beam in all cases because his neighbor has found it good to do so. Let every writer tell us what his location, his county, is first, and what his soil is second; and then we can judge whether it is proper for us to follow his methods or not; and let him know that if he writes the sky over he can give us no practical information for our use till he does that. Some soils need to be plowed to the beam all the time; others need it for some crops, not for other crops; and some do not need it at all, their natural absorbent power will produce as great a crop as can grow and stand upright in the field, and that is enough; and what use in sweltering both man and beast to do work to no profitable end, except some one in the newspaper has told us that he does so and so. Where does *he* live? and what is *his* soil? These, and these alone, are the vital questions to us, and perhaps the only questions whose answers he withholds. It is wisely ordered that every man shall be compelled to study his own particular farm, and not take on trust all his neighbors say.

Great and *eternal* principles affect us all alike; their wise application can belong only to the particular man. It is therefore wisely ordered that the intellect of the race combined should search out the one, and that on him alone should be thrown the responsibility of the other.

The depth to which any man should plow for any particular crop can be determined wisely only by himself. To revert to our standing simile—the depth of plowing is analogous to the height of the wick in the lamp. If a man then wants more light, let him raise the wick of his lamp so that the flame will take hold of it deep down, and if he wants less, let him make it more shallow. So if he wants a greater bulk of crop in any case, let him plow deep; or if he wants a less bulk let him plow shallow, and according as he adjusts his wick in the field with the plowshare, all other things being equal, so will the flame of his crop be either light or heavy; and as the fineness of the wick of the lamp is of more vital importance than the mere depth to which it is made to burn; so, there can be no question that the same *fineness* is of more consequence than bare depth of plowing in the soil.

It may be laid down then, as a universal principle, that no soil can be crushed too fine within a given depth for any crop whatever, while it is usually left far too coarse for all crops. The importance of this simple element of comminution or fineness will appear if we consider that there are soils of very fine sands in Ohio, which bear splendid crops of corn annually, which are, by chemical analysis, exactly similar to other soils of coarser sand, in the East, which will hardly bear any thing at all; and precisely the same chemical ingredients which

compose our present prairie soils may be found every where on rocky mountain heights which will produce nothing but the bare mosses. And still further, I have seen old fields in Morgan county, which had been wadded up with simple steel plows and the yearly tramping of teams and horses into clods and balls of earth till they would not, under the same culture, produce forty bushels of corn per acre, and were thought to be worn out, but by making the soil fine and deep again they produced, by actual measure by the State Board of Agriculture, from one hundred—even to one hundred and thirty bushels per acre. All are aware of the successful experiments of Jethro Tull and others in England, who inferred that a due degree of pulverization of the soil by plows, harrows and rollers was all that was needed to secure its perpetual fertility in the same crop year after year; and in some soils, like those around Naples, and like many of our soils in Illinois, where there is a rich, deep sub-soil, this theory would prove true for thousands of years, while on a shallow sub-soil, like that of England, where it was tried, it in time necessarily failed, for if your lamp is but two inches deep, it cannot burn without replenishing as long as you live of course.

Were it not for a seeming egotism, and want of space, I would detail here my personal experience in this line with a piece of land that has been in constant culture for thirty years under the plow, and for the last ten years under an annual cropping of a kind that is usually supposed to utterly exhaust the richest soils in two or at most three years; and yet I confidently expect a better crop the next year, in the same line, than the last, simply because I have prepared my ground better, though without a spoonful of manure. It makes no difference how this fineness of the soil is secured—whether it be done with rollers and harrows and plows in the spring, or during the culture of the crop throughout the summer, or whether it be done by fall plowing (on soils which will not run together), and the snows and frosts of winter be trusted to do the work, or whether the field be laid down to grass, till the fine, piercing grass-roots, working at it during the moist springs and falls, penetrate into every clod, and thoroughly disintegrate it, till it will again boil up before the plow, as it moves along in the furrow, like a kettle of boiling plaster of Paris—either of these ways, or any other way, to get the soil FINE, will at once set all of these great processes of absorption and attraction into operation again, on good land, with a good, deep sub-soil, with the same power as when the land was first plowed—or if the soil be covered with manure or ashes, the alkalies and acids of which will eat it into fineness to some extent as well as add both to its absorbing and nutritious power by their own presence, it is all well. If the work is only done, Nature does not stop to inquire how it is done, or who or what did it; she simply makes her own deposits in the bank thus prepared, more or less, and goes on, asking no questions for means' sake nor for "conscience sake." It is self-evident, however, that on these soils when there is an actual exhaustion, with no sub-soil below for a further supply, the crop can only be recruited by manures—just as your shallow lamp must be filled, if it has actually burnt out. It is equally evident also that the cheapest way of fining an old cloddy field is either to fall plow it or to lay down to grass for a year or two, when the ground can be spared for that purpose, which will effect the end more perfectly and cheaply than any practical process of art by harrows and rollers, as all know who have tried it. But I have no idea that one-half the soils that are supposed to be exhausted in the West, are exhausted by anything but the ignorance and shiftlessness of their cultivators, and a new plowman would revive them at once; and some of those who have read books on this subject are only a great deal more ignorant, practically, than they probably would have been if they had never read anything, for the books themselves have no broad and just comprehension of the true philosophy of the whole subject; it is only an everlasting dabbling in mere isolated details—like setting up one or two single finger boards to guide a man out of a labyrinth a thousand miles square.

[To be continued.]

QUERY ANSWERED.—Why are farmers healthier than professional men?

1. They work more and develop all the muscles of the body.

2. They take exercise in the open air and thus inhale more oxygen.

3. Their food and drinks are less adulterated and far more simple.

4. They do not overwork their brains as professional men do.

5. They take their sleep commonly during the hours of darkness, and do not attempt to turn day into night.

6. They are not generally so ambitious, and do not wear themselves out so rapidly in the fierce contests of rivalry.

7. Their pleasures are far more simple and less exhausting.

## A Weekly Valley Farmer.

Ed. Valley Farmer: Considering that St. Louis is the centre of one of the finest agricultural, horticultural and pastoral regions of the United States, it seems to me that a monthly paper is not sufficient to meet the needs of its varied and numerous rural interests; and that the time has come when a due regard both to the interests and intelligence of the magnificent Mississippi Valley will enforce the establishment of a weekly farming paper in this vicinity.

The arguments in favor of such action are many; but I will mention only a few which first suggest themselves:

1. It is evident that in the present advanced state of newspaper publication, that a monthly is too slow. It comes too seldom to be looked for with expectation, such as is stimulated and kept awake by a weekly visit. It is behind the weeklies in advertising facts of interest to the farming world. Its market reports are too rare to be valuable. It advertises fairs, exhibitions, &c., in a posthumous way that oftentimes gives more vexation than information.

2. Again a monthly cannot, without increasing its pages enormously, give all the current farming news which would benefit its readers. At the present day the rural mind is more active than in past years, and fresh facts from the field, the orchard and the pasture continually demand place and discussion in the columns of the *live* agricultural periodical. The field of rural literature opens up broad, fertile and fresh, and the dormant minds of clodhoppers are at last awakened to a keener sense of the beatitudes and beauties of country life.

3. And, again, I believe that agricultural information in weekly allowances is better marked, read, and inwardly digested than in monthly. Homœopathic doses succeed best here. Such at least is my impression. A full monthly is too much for most men: one not full is imperfect and insufficient. An equal amount of matter divided into four parts can be read with less appreciable effort and expense of time.

Our best agricultural papers are in fact assuming this form. The *Country Gentleman*, which, in matter and mechanical execution, is probably the first rural publication in the nation, has been published as a weekly for some years, replacing the prior "Cultivator." The *Prairie Farmer*, the old and favorite agricultural journal of the North-West, has been for five or six years a weekly. Moore's *Rural New Yorker* (not, however, an exclusively agricultural paper) is also a weekly of wide influence.

I hope the day is not far distant when the *Valley Farmer* may go and do likewise. Here centre the horticulture of Hermann, Alton and Egypt; the agriculture of Northern Missouri and central and southern Illinois; and a yet wider range of stock interests from Texas, Missouri, Kentucky and Illinois;—and all these should speak through its columns, telling what they have of value to the public at large, and learning in turn new principles and new methods in their various branches of farming.

Farmer Freeman.

---

[We thank our intelligent correspondent for the above article. We have had the subject of a Weekly Agricultural Paper under consideration for some time; but the present condition of the country does not seem auspicious for such a change at present. When smiling peace again returns to our once happy land, we will take into profound consideration the suggestions of our correspondent, and probably act upon them in a way that will prove satisfactory to him and thousands of our other readers.]—*Ed.*

---

[Written for the Valley Farmer.]

## TILLING.

Let your plow run deep where there is a good depth of rich soil. You cannot let it run too deep. Drive it into the beam, and then follow with the sub-soil plow. This will bring up the virgin soil that has lain still for ages—and it will do it good to see the sun. Then (providing your soil is drained, if wet,) you may plant trees, corn, or sow grain or grass. You have your crop secure. For machinery makes a man inexcusable if he does not harvest his grain well. The ground is the main thing; and depth of soil the main of the main. Roots have a downward tendency; and if they find rich, loose soil to work in, the tree, the grain, even the grass—especially clover—will show the effect at once. Top-manuring will do for surface rooting plants—for the strength of manure will penetrate soil but a little. Manure should be worked under, and mixed well with the soil where the ground is loose and mellow—for this porous quality will let in the light and the heat. Top-dressing is only good for the grasses and grains whose roots keep near the surface. Manure is used in this way at the East on hops, but thoughtlessly.—Where the soil is deep and rich, the hops are good; where it is poor, and especially where the sub-soil is clayey or worthless, the crop is a failure. And yet the manure is equally used on all, applied to the surface, its strength reaching but a few inches, not affecting the root which

reaches far into the ground. So on corn, top-dressing has little effect. The remark holds good even with liquid manure, unless the soil is punctured before the application. In the case of trees this is indispensable. The manure must get in a foot or two—depending upon the size of the tree and the nature of the soil. It is the sub-soil that feeds orchards. Hence it is that the grasses (except clover) are little or no injury—if not a benefit, as a mulch—to old trees, and an injury to young orchards, whose roots are interfered with by the roots of the grasses and grains that easily come in contact with them. A small orchard (eight trees) of thirty-five years' standing, which the writer has had the treatment of for the last dozen years, has been plowed twice in the twelve years; the rest of the time it has been in grass—Timothy. The trees are perfect, in every respect—large, some of the tops forty feet in diameter, and the most prolific of bearers, with the choicest, finest of fruit. But the soil has depth and fertility; there is constant play for the roots. The grass (there are two crops cut every year) acts as a protection to the moisture.

There is, therefore, difference in the cultivation of trees, grasses and grains. The soil for orchards is the soil also for corn; and what will do for corn will do for hops. These require depth, and will withstand drouth. Altogether different is it with Timothy and most of the small grains. A drouth will soon affect these, unless special care is taken. Here manure (top-dressing) has a fine effect. I have known it grow heavy grass on soil which was almost all sand, and that in a drouth. F.G.

## POULTRY HOUSES.

Properly constructed poultry houses should have a south-east aspect, sheltered by plantations or walls from the north and west, and the yards furnished with sheds and shrubs to shelter them from the mid-day sun or harsh winds; it should be constructed so as to give as much warmth as possible, but ventilation perfectly maintained. The floor should be elevated and perfectly dry; if boarded, so much the better. Walls and roofs air-tight; the windows should be placed so as to command a thorough draft in the day time in hot weather, but one should be closed at night, as a thorough draft when asleep is very injurious to them; those windows should be covered with wire lattice, to prevent the fowl getting in and out at pleasure. A lean-to roof is generally best, and the perches should rise from the floor, the first eighteen inches from the ground, and one foot apart, each perch rising a foot above the other; nests are made at each end, built of lime and brick.—[*Irish Farmer's Gazette.*

## THE GRAIN WEEVIL.

The beetle represented in magnified dimensions in the annexed drawing (the line showing its real length) is stated "to have been produced from eggs among some wheat which came from the Patent Office last fall." It is a true grain-weevil—the *Sitophilus remote-punctatus* of Gyllenhall—and differs from the commoner European species (*Sitophilus granarius* of Linnæus), in being coal black instead of pitchy red, and in having fewer "punctures" or little pit-like depressions on the thorax. In Europe, where these two insects are common, and whence they were originally introduced among us, they do an immense deal of damage in granaries, each larva burrowing singly in a grain of wheat and gradually consuming the contents, just as the closely allied rice weevil (*Sitophilus Oryzæ*, Linnæus,) operates upon rice in this country, or as another species of the great weevil family, the common pea bug (*bruchus pisi*), operates upon peas. The mischief is frequently not discovered till the mature weevils begin to work their way out of the wheat, when the owner finds, to his surprise, that what appeared at first sight to be good sound kernels are nothing but empty husks. Kirby and Spence were informed, by a man engaged in the brewing trade, that he collected and destroyed them by BUSHELS; and, if they are allowed to increase and multiply undisturbed for any considerable time, it seems difficult to set any limit to their destructive powers, for it has been calculated that a single pair may produce in one year six thousand descendants.

Dr. Harris stated, twenty years ago, that this same species was found in New York. It may probably occur in other parts of the United States, but as several other insects which attack grain are popularly confounded under the name of "weevil," it is often difficult or impossible to identify the culprit. For example, there is good reason to think that what in Central Illinois is known as the "red weevil," is nothing but the *wheat midge*, which is a two-winged fly, belonging to the same order as the house fly and the mosquito, whereas the true *weevils* belong to the order of beetles, and have all hard, shelly, wing-cases, and long horny snouts.

Unlike the wheat midge, the grain weevils never attack growing crops. Their depredations are confined to the granary, but if they once get a start there, it is difficult to get entirely rid of them. In the gigantic grain warehouses at Dantzic, on the Baltic, men are kept constantly at work shoveling the grain from bin to bin; for it has been found by experience, that frequent moving and exposure to the air checks the ravages of these insects. If the quantity of grain is small, kiln drying is the most sure and effectual remedy.

When we consider that three of our most noxious insects—the Hessian fly, the wheat midge and the bark louse—are not indigenous to America, but imported from Europe, it seems singular that so little care should be exercised by the authorities of the Patent Office in distributing imported seeds. Dr. Leconte states that one insect — a diminutive beetle called *Rhizopertha pusilla*—was introduced in specimens of wheat distributed from the Patent Office; and if the present system is persevered in, it may end in giving us some new noxious insect as destructive as the Hessian fly, or as troublesome as the house fly. Suppose a single pair of the European "Angoumois grain moths," were introduced into some of the enormous grain warehouses at Chicago, and allowed to multiply undisturbed for a few months! It might and probably would result in an annual loss to the State of Illinois of over a million of dollars.

*Rock Island, Dec.* 24, '61. Benj. D. Walsh.

—[*Jour. Ill. State Ag. Soc.*

## INDEPENDENCE.

Let your first care be, then, independence. Without pecuniary independence you are not even intellectually free; with independence, even though it be gained through some occupation, which you endure as a drudgery, still out of the twenty-four hours, there will always be some hours for the occupation in which you delight.

### SAVE MORE THAN YOU SPEND.

Independence! independence! the right and the power to follow the bent of your genius without fear of the bailiff and dun, should be your first inflexible aim. To attain independence, so apportion your expenditure as to spend less than you have or you earn. Make this rule imperative. I know of none better. Lay by something every year, if it be but a shilling. A shilling laid by net and clear from debt, is a receipt in full of all claims in the past, and you go on with a light foot and light heart to the future. "How am I to save and lay by?" saith the author, or any other man of wants more large than his means. The answer is obvious—"If you cannot increase your means, then you must diminish your wants." Every skilled laborer of fair repute can earn enough not to starve, and a surplus beyond that bare sufficiency. Yet many a skilled laborer suffers more from positive privation than the unskilled rural peasant. Why? Because he encourages wants in excess of his means. He who has saved for one year finds the security, pleasure and pride in it a luxury so great that his invention will be quickened to keep it. Lay by! lay by! What makes the capital of nations! Savings; nothing else. Neither nations or men are safe against fortune unless they can hit on a system by which they save more than they spend. When that system is once established, at what a ratio capital accumulates! What resources the system gradually develops! In that one maxim is the secret of England's greatness! Do you think it mean to save more than you spend? You do in that what alone gives your country its rank in the universe. The system so grand for an empire cannot be mean for a citizen?

Well, we have now added another rule to the canons prescribed to the management of money—save more than you spend. Whatever your means be, so apportion your wants that your means may exceed them. Every man who earns but 10s. a week can do this if he pleases, whatever he may say to the contrary; for if he can live upon 10s. a week, he can live upon 9s. 11d.

In this rule mark the emphatic distinction between poverty and neediness. Poverty is relative, and therefore not ignoble; neediness is a positive degradation. If I have only £100 a year, I am rich as compared with the majority of my countrymen. If I have £5,000 a year, I may be poor compared with the majority of my associates; and very poor compared to my next door neighbor. With either of these incomes I may be positively free from neediness. With the £100 a year I may need no man's help; I may at least have "my crust of bread and liberty." But with £5,000 a year I may dread a ring at my bell; I may have my tyrannical masters in servants whose wages I cannot pay; my exile may be at the flat of the long suffering man who enters a judgment against me; for the flesh that lies nearest to my heart some Shylock may be dusting his scales and whetting his knife. Nor is this an exaggeration. Some of the neediest men I ever knew have a nominal

£5,000 a year. Every man is needy who spends more than he has; no man is needy who spends less. I may so ill manage my money that with £5,000 a year I purchase the worst evils of poverty—terror and shame; I may so well manage my money that with £100 a year I purchase the best blessings of wealth—safety and respect.—[*Blackwood's Magazine.*

## DISPOSAL OF BONES.

C. T. Alvord, commenting on the best way of disposing of bones, in the *Country Gentleman*, says:

After reading much on the different methods of disposing of bones which accumulate about the premises of the farmer, and converting them into an available manure for agricultural purposes, I will inform your readers how I dispose of my stock of bones. All the bones which are obtained from the meats used in the family are saved and carried to the hen house and deposited there, to be used when wanted. Near the bones is placed a flat stone, large enough to break them on. At the commencement of winter I begin to break them up, and dispose of them in the following manner: Laying the bones on the stone, with an old axe I pound them up fine enough for a hen to eat, and then let my hens *eat them*. In this way of disposing of bones it requires no sulphuric acid, potash, or other costly drugs, which are somewhat dangerous for persons to use who are not acquainted with their nature. Neither does it require any fixtures to prepare them in, nor time and labor to manufacture the materials into a compost. The hens furnish the fixtures, time and labor, and manufacture the bones into as good manure as any that is made on the farm.

At the present time I do not propose to discuss the comparative merits of the various preparations of bones that are used for manure, neither am I prepared to decide whether bone manure or hen manure is the most valuable for agricultural purposes; but I am well satisfied as to the value of hen manure for any use that I have made of it. I believe that it is an established axiom in agriculture that the richer the food on which an animal is fed, the richer and more valuable will be the manure. As fresh bones contain much animal matter as well as phosphates, the manure of hens fed with bones must be much more valuable than when kept in the ordinary way.

But the most profit which I obtain from bones used in this way, is the extra quantity of eggs which my hens produce when fed with the bones. I have found that it is necessary to give my hens a generous supply of animal food as well as that containing phosphates, if I wanted them to lay well, and other things being equal, the supply of eggs has always been governed by the supply of these articles of food.

As my hens have the run of the farm when the ground is bare, they get a supply of vegetable and animal food, but in the winter season they must be furnished with these things from other sources. I think there is no one thing that furnishes a larger proportion of egg-producing food than fresh bones, as there is always more or less animal substance adhering to them. By making a little calculation with my bones and other animal offal, I give them this food several times a week during the season that they cannot get to the ground. Since I commenced feeding my hens in this way, the average weekly production of eggs has been fully as large through the winter as during any other part of the year. The price at which eggs sell for in this vicinity is generally one-third more in the winter than in the summer, so that when the eggs are sold it makes a considerable difference to what it does not to have any eggs through the winter, as is the case with many who keep hens, and to sell what eggs are disposed of in warm weather, at the low prices which generally rule at such times. The past winter I kept fifteen hens. Early in the spring a neighbor, on being told that my hens had laid nearly 50 doz. of eggs since December last, said that "his hens had not laid an egg then, that he had not commenced feeding them yet to make them lay," their principal food previous to this being boiled potatoes and oats—thus showing conclusively in this instance that hens must have the right kind of care and food to make the keeping of them pay well.

## Air-tight Preservation.

It is getting to be so now that almost everything in the eating line is preserved in air-tight places. The various fruits have some time been preserved in this way, so much so that the matter has become a business. We see it stated now that grain is also preserved in this way; that is, it is put in air-tight bins, made of sheet iron, coated over so as to prevent rust, and put in the cellar or in the ground. In this way experiments have proved that grain may be kept in a perfect state for years, and doubtless for any length of time. Wheat has been found preserved in the Egyptian mummy, where it has lain for thousands of years. Preserved in bins is preferable to a granary in many ways. It is much less expensive; it is never touched by rot or fly, and comes out the pure wheat it goes in, without loss of weight or the gathering of mold,

## LIME AS A FERTILIZER.

I noticed in a late issue of the *Rural* a communication from a subscriber, desiring information on the subject of lime as a fertilizer. In New Jersey and some of the eastern counties of Pennsylvania, lime has been extensively used as a fertilizer for the last twenty years. Many farms in that region which would sell for no more than twenty-five or thirty dollars an acre, are now worth a hundred, and the improvement has been made almost wholly by the use of lime. But renovating worn out lands by the use of lime is a business which a man should understand before engaging in extensively. It does not act like stable manure, and produce a beneficial effect in whatever manner applied. In fact, were it so used, it would in many cases prove a serious injury instead of benefit to crops. Formerly, the practice was to spread it broadcast, at the rate of fifty bushels of slacked lime to the acre, on land prepared for wheat, and just before sowing. But more recently the practice has been to spread it as early in the season as possible, on sod intended for corn the next year. By the first method but little if any effect would be observed in the crop of grain, but the crop of hay following would be more than doubled, as well as the crops following. By the last method a very marked effect would be observed in the corn and following crops. Its effects will always be most distinctly seen in grass. In the extensive peach orchards of New Jersey, lime is almost the only manure used.—[J. D., *Rural New Yorker*.

## IRRIGATION.

This piece of husbandry is too much neglected. Do people ever consider that irrigation prevents drouth? Generally in a drouth, there is hot weather. Then, if water is plentifully applied, there is all the better growth. There should be in every neighborhood one farmer to test this; to show the people how much benefit there is in making a free use of water. This would be example, and would be all that is necessary. We have tried it, and seen it tried, to our entire satisfaction. Yet there are people who will say, "it hurts a garden to water it; it leaves a crust on the top." So will a slight rain. The great difficulty is, they do not water enough at a time. Apply the water as though you would drown the soil. Do it for a long time—for many hours—for days, according to the nature of your soil. Sandy or mellow soil may be sufficiently watered in a few hours; but it will take a long while for a rigid clay soil to become thoroughly soaked. The length of time is an easy matter to determine. How long will it take a rain to soak your ground? Now, watering is only a rain artificially applied. One or two good rains, or waterings, will generally be sufficient for an ordinary drouth. Yet who will deny that more rain than we generally have in July, August and September would be a benefit? We know how it is when we have a wet season; how meadows will thicken at the bottom; how the tender grass will repay for the old which has been left standing too long on account of the wet; how pastures and cut meadows green over; how oats and corn, potatoes and turnips, buckwheat, gardens, and all things that grow out of the ground, thrive. This is so only when frequent rains occur.

Now, look at the advantage the farmer has who waters his land. He has the effect of the rains without their injury to the harvest. He waters his grains, his roots, &c., but has dry hay. "Oh, but who can water a whole field?" Who can? You, if you have one. If it pays to water your garden, it will pay to water a larger garden, and a larger still, till you get it the size of your field, your several fields, your farm. The ancients used to do this. It is done now in many parts. Of course there must be watering advantages. And these are more accessible than is generally supposed. The whole country is threaded with streams and springs, and there are the still more numerous wells. To say we lack water, would hardly be an excuse.

We have practiced irrigation to some small extent, and it has surprised us how much water a parched soil will take. We have thrown barrels at one watering on single beds of some four yards square, and wet the ground as many inches. Is it a wonder, then, that plants suffer in a drouth? Such a watering, or a still more thorough one, will last in rich, mellow soil, a fortnight or even longer, if there is little wind and plenty of dew. Water, in a drouth, is manure: it has the effect of the best manure. It will of course abstract strength from the soil. That's what the crop is put into the soil for. Watering, then, is a means of obtaining a full crop. Without it, this cannot be done, or very seldom, for there is generally more or less drouth in July and August. Irrigation should be considered an important branch in the farmer's operations. Try it. Try it first on a small scale if you are incredulous. But never, never sprinkle slightly; it is hurtful. It will crust

your ground, drying it from below as well as at the top. Water thoroughly, or not at all, so that one application will last a week or two.—This is the great point—water well. Let your "rain" be a soaker, and the drouth, instead of being a damage, will be a positive benefit, as heat and water are the rapid agents. One alone will not do.

## Spirit of the Agricultural Press.

*Clover Hay for Cows*—The "N. E. Farmer" states, that Mr. John Day, of Boxford, Mass., who cuts large quantities of clover, feeds it out principally to his milch cows; and he finds that when the clover is exhausted and he feeds Timothy and red-top, "twenty cows immediately shrink two cans of milk per day."

*Agriculture in the West Improving*—The "Prairie Farmer" says, the farmers in the West are now generally in better condition than for years past; fewer debts are pressing upon them, and they evince a determination to confine their operations to fewer acres, and adopt a more systematic and better mode of farming.

*Asparagus Beetle*—The "Horticulturist" says the Asparagus beetle which appeared on Long Island about six years ago has worked its way up as far as Astoria, nearly or quite destroying the asparagus plant in its progress. It is very destructive to the plant, eating it in all stages of its transformation. We have seen many fine beds utterly ruined, and in more than one locality the culture of asparagus has been abandoned.

*Milk and Butter from Ayrshire Cows*—The Boston "Cultivator" states that H. H. Peters, of Southborough, Mass., weighed his milk from his dairy of nineteen Ayrshire cows, from June 15th to 25th—ten days. They gave an average of 32 lbs. each per day. The milk from eighteen being set for one day, gave 20 lbs. of butter. One cow gave 58 lbs. of milk in a day. Her milk for three days gave 6 lbs. of butter, or 2 lbs. per day. This cow had two quarts of corn and cob meal per day. The rest had nothing but pasture feed.

*Top Dressing Meadows in Summer*—The Ills. "Farmer" recommends farmers in that section to top-dress their meadows immediately after the hay is removed. This keeps the hot sun from injuring the roots of the Timothy grass, and increases the growth of the aftermath. The crop of grass is better the next season, than if the manure is put on in April. In fact the editor says "it is more than double the value of that put on in April with us."

*Spring Wheat in Maine*—The editor of the "Maine Farmer" has been examining the returns from the County Agricultural Societies in that State, and finds that the average premium crops of spring wheat, reported for several counties, was 34 bushels per acre. This, he well observes, shows what could be done in Maine in the way of raising spring wheat, when the seasons are favorable for the growth of the crop and the destruction of the midge. More wheat has been sown this spring than last year, but the weather has been too dry for it.

*Turnip Fly*—The "Canadian Agriculturist" says Mr. E. G. O'Brien, of Shanty Bay, has for several years used the following prescription to prevent the ravages of the turnip fly, and on each occasion the plants have escaped injury: Oil of turpentine, one teaspoonful to each pound of seed, stirred till the oil is absorbed. The seed should be sown immediately. After the seed has been so treated, it will have a shining, glistening appearance. It is the oil, not the spirits of turpentine that is used. The editor of the "Agriculturist" has on several occasions used fish oil in the same way with favorable results.

*Poultry*—The commander of the galley "Ganymede" said, "If it were a calm, the good ship was in a perfect safety; if it blew hard, she sailed the faster. If the night were light, a collision was almost impossible; and if it were dark, pirates could not see them." And so, in a like happy strain, the London "Poultry Chronicle," in an article urging the more extensive raising of poultry, remarks: "If the weather is cold, dead poultry will keep; if it is hot live poultry will grow; if the sun is scorching, fowls will bask and enjoy it. If the weather is wet and muggy, the earth will teem with animal life for chickens."

*Manuring for Wheat*—Geo. Geddes, of Onondaga county, remarks in an article written for the "Country Gentleman," that in his section "manure should be applied on or near the surface. Ground intended for wheat, after the last plowing, when the furrows are as rough as the plow has left them, is just in the condition to receive the manure that has been reduced in bulk and mixed by the processes practiced here. The harrow will mingle it with the soil, and perhaps slightly cover most of it, if it is drawn across the furrows. Then roll the land and drill the wheat, and leave the surface untouched behind the drill. If anything will insure a crop of wheat here, this is the way to do it."

*Worth of Poultry in Britain 1,000 Years Ago*—Under this heading the London "Poultry Chronicle" gives the following quotation from the "Ancient Laws of Wales:

"The worth of a goose, one legal penny; of a gander, two legal pennies. The worth of a brood goose is as much as the worth of her nest, and there ought to be in her nest twenty-four goslings. [Broods have degenerated since then!] The worth of each gosling is a halfpenny, or a sheaf of barley until it lays, and after it lays each one is a legal penny in value: thus a brood goose is twelvepence in value.

"A hen is one penny in value, and a cock is two hens in value. Every chicken is a sheaf of oats or a farthing in value, until it shall roost; after that a halfpenny until it shall lay or shall crow."

---

WATER LIME mixed with skimmed milk is said to make an excellent drab-colored paint. It will adhere well to wood, stone, brick or mortar where oil paint has not been used, and is very hard and durable.

### To Preserve Stakes and Posts.

We very frequently hear inquiries for some process that will prevent stakes and posts from rotting where they are sunk in the ground. The following gives a method at once simple and cheap, and which is worth a trial:

"Quite recently, while walking in the garden with the Hon. J. W. Fairfield, Hudson, New York, he called my attention to the small stakes which supported the raspberry canes. The end in the ground, as well as the part above, was as sound and bright as if lately made, but he informed me that they had been in constant use for twelve years! Said I, 'Of course they are cyanized?' 'Yes,' he replied, 'and the process is so simple and cheap that it deserves to be universally known, and it is simply this: One pound of blue vitriol to twenty quarts of water. Dissolve the vitriol with boiling water, then add the remainder.

"The end of the stick is then dropped into the solution, and left to stand four or five days; for shingles, three days will answer, and for posts six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, for the reason that any barrel will be shrunk by the operation so as to leak. Instead of expanding an old cask, as other liquids do, this shrinks them. Chloride of zinc, I am told, will answer the same purpose, but the blue vitriol is, or was formerly, very cheap, viz., from three to six cents per pound."

"Mr. Fairfield informed me that the French government are pursuing a similar process with every item of timber now used in ship building, and that they have a way of forcing it into the trees in the forest as soon as cut, ejecting the sap and cyanizing it all on the spot. I have not experimented with it, but Mr. Fairfield's success seemed to be complete.

"The process is so simple and cheap as to be within the convenience of every farmer, and gardener even, and I therefore thought it so valuable as to warrant a special notice of it."—*New Jersey Farmer.*

---

How to Make Barn-Yards.—As your correspondent Tyro has asked this question, I will answer it, giving my plan. First make the yard level (large or small); then commence in the middle and scoop out in the form of an apothecary's scale, deepest in the middle, to the depth of one foot in the deepest place. Then collect straw, leaves, old hay, bog-grass, saw-dust, or anything that can be made into manure, fill it up level, with a row of mangers around the outside; then have living water in the yard; and, when you commence foddering, shut the bars or gate, and keep every creature in the yard when not in the stable; then fill up with litter to give them a good bed, and keep doing so until spring, and the manure is three feet deep or more if possible. Then dispose of it as best you can. Some let it remain until fall, and use it for top-dressing; others cart out in spring, and commence filling up again to keep the weeds from growing.

A dry yard is good for nothing to make manure in, while one made from six to twelve inches dishing will always be dry around the outside, and the dish will hold water enough for the mass above to suck from. Have good eave troughs on all the buildings, to keep out all the water possible. Spread the horse manure from the stable over the yard as fast as made. Sprinkle in ashes, plaster, muck, turf, chaff, &c., and waste nothing, and you will soon have a pile of manure that would greatly astonish some that (falsely) bear the name of farmers—[*Co. Gent.*

---

### SAVING SEED CORN.

I think now is a good time to present a few thoughts on the subject of corn. Many of our best, or rather most extensive farmers, are wanting in care or judgment, or both, in saving seed corn. Some of them never have any seed that will grow; others have such imperfect seed, that not more than one-half of the hills have any standing grains, and those that do stand, are of a yellow, sickly look. Occasionally, a grain or hill is healthy, and looms up astonishly, while its neighbors barely creep and crouch by its side. Be not alarmed when I tell you this vast difference is for the want of perfect seed in planting, and nothing else.

I have furnished seed corn this season, for several of my neighbors to replant, for the fault was invariably in the seed. Some planted corn taken from the crib—a few grains, of course, grew and flourished. Others picked corn after they had done husking, to save time; and they did; but they were obliged to replant as the result.

I furnished five bushels of seed, all I had to spare, for replanting, and every hill came up well. One of my neighbors furnished some twenty bushels to farmers ten or fifteen miles off. If this is not so—every farmer should be ready in the fall, as soon as corn begins to ripen, to pick the largest, fairest, and soundest ears he can find, leaving nearly or quite all the

husks on the ear, tie them with the husk, two end two, or braid them in strings, say fifteen ears each, and hang them in a dry loft, in the barn or house, secure from rats and mice, and keep them till wanted next May for planting.

This remark on raising seed corn first ripe and without frost, will apply to all other kinds of seed; the earliest ears should be saved for planting. Good seed will pay all the time. It will pay when it first comes, as it comes all at once; it will pay in growing all summer, as it grows about the same speed all over the field; it pays in the crib, as the yield is far better, as the produce is healthy from sound and perfect seed. There is nothing that will pay a better per cent. than pure and perfect seed, as the thirty acres of corn which we have will demonstrate to all who may see it.

Farmers, be careful, then, in the selection of seed, and you will surely receive your reward.—[*Exchange.*

## A Guard against Drouth.

A mellow soil, having depth, is the only reliable thing, unless irrigation is practiced. In a drouth (and we have them almost every year to our injury) the surface of the soil must depend on the moisture of the under soil. This is drawn up by what is called capillary attraction, as the wick of a candle draws up the melted tallow to feed the flame. Thus the great depth of the ground is the grand source whence the parched upper soil gets its moisture in dry weather, when the earth is constantly exhaling moisture. And it is this mellow soil that is the best medium in the world for that. A hard soil will not permit the moisture to rise to the surface. It bakes dry, shrinks and cracks, and thus is unfit for vegetation. Those farmers that stir most their soils in a drouth are most successful. It not only keeps weeds out, but *draws* moisture from the depth below, where there is water enough always and to spare. It is this depth that feeds our never-failing fountains. The whole secret is in this one word *capillary;* and a mellow soil makes the capillary.

Hen Houses.—Poultry-houses floored with beaten or well-rammed clay are said to be less infected with lice than houses which have sandy floors. In this, however, as in other departments of stock-keeping, cleanliness is, after all, the best preventive. Cleanliness of the house and cleanliness of the hen. To secure the latter, let a plentiful supply of pure fresh water be given to them; and a dust-bath should form an essential part of the furniture of a hen-house.—A correspondent suggests that to exterminate lice in fowls, they should be fed for several days on coarse meal wet with water and sulphur mixed with it; the nests being at the same time thoroughly cleaned, the house fumigated with tobacco, and all the roots and wood-work whitewashed with fresh lime mixed with sulphur or tobacco.

[Written for the Valley Farmer.]

## WINTERING BEES.

It seems to be an understood fact that bees should be wintered in a warm place; that is, not out-of-doors in the open air. They should not remain in winter where they are in summer. It is remarkable how many people there are that yet oppose this theory. They refer you to "wild swarms that harbor in trees," where the greatest amount of honey, they say, is found. It is sometimes true about the honey. But it must be considered that bees in general are well-wintered in trees; and bee-keepers may here learn a lesson. It is the tree—the thick sides surrounding the colony—that protects the bees.

The other day, in mentioning to a bee-keeper, who never reads, but gets his knowledge from experience, that the books say that bees will sometimes starve in the midst of honey in winter, I was surprised to hear him say, "Yes, sir, I have had them often die that way."

"But what causes it?"

"Well—my opinion is they can't get out of their place on account of the cold. The moment they attempt it they are chilled, and rather than be frozen to death, they will stick together and starve. I have kept my bees buried in the snow, and kept them out of the snow. I shall hereafter keep them in the cheese-room."

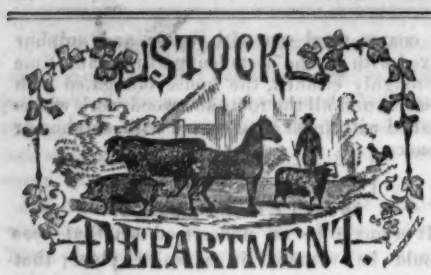
"What is that for?"

"There they are dry; and when the weather gets cold I shall warm the room. I shall keep the room dark."

"You have never tried it?"

"No. But I've seen it tried. I saw it done last winter; and not a swarm of the whole died, but came out clean and fine. Everybody else lost bees that kept them out-doors." F. G.

Lamp Oil for Leather.—Oil your boots with lamp oil, which keeps the pores of the leather open better than most oils or grease. It will also soften leather more effectually, because more penetrating. The writer has used it and recommended it for many years with perfect success. It is not so good a preventive against wet as tallow, and needs to be applied oftener. Tallow, however, is of a cloggy nature. Lamp oil preserves the life and flexibility of the leather; and hence it is less disposed to rot or break.




[Written for the Valley Farmer.]

## VETERINARY DEPARTMENT.

By Geo. H. Dadd, V.S., St. Louis, Mo.

### SWEENY, OR WASTING OF MUSCLES.

*Preliminary*—This affection is one which prevails very extensively among Western horses, and indeed has occasionally been present in all parts of the United States; yet very little of a reliable character has ever been written on the subject, hence, as a professed teacher of veterinary science, and not being willing to carry my knowledge to the grave, it becomes my pleasant duty to give the readers of the *Valley Farmer* the benefit of my experience, and in so doing I shall endeavor to be brief, practical, and also to deal in facts.

Sweeney is a term used by husbandmen, signifying wasting of the muscles in the region of the shoulder-blade; professional men recognize the affection as *Atrophy*—wasting; a *gradual* or *sudden* diminution in the size of muscles of a region or of the whole body. When the affection is confined to the shoulder it is called local atrophy; and when there occurs a morbid and progressive diminution in the bulk of the muscles of the whole body, the disease is known as general atrophy, or *Marasmus*.

Medical writers generally contend that sweeny or atrophy is occasioned by faulty or defective nutrition, and is usually symptomatic. Ancient authorities say, that, in atrophy, the fat only is wasted. This is a great mistake: for a collapsion of the cellular, muscular and vascular systems, in a case of atrophy, is evidently apparent.

*Pathology of Sweeny.*—I now propose to discuss the theory of the pathology of sweeny.

I have had several opportunities of examining horses that have died in consequence of disease or old age, whom, during life, were the subjects of sweeny, and I always found the muscles of the shoulder, or shoulders, pale-looking or bloodless; almost resembling the muscles of a calf that had been bled to death: the ordinary color should be a reddish-brown tint. The collapsion was not only confined to the muscular fibres, but it affected the blood-vessels, which appeared to be constricted; and the cellular membrane had almost entirely disappeared, merely by condensation and contraction of the skin over the region of the parts; which contraction usually occurs in consequence of shrinking of the muscles beneath.

In conformity with the opinions of our veterinary authorities, I have hitherto in most cases considered sweeny as a symptomatic affection, from the fact that I have had to treat a number of cases similar to the following:

A celebrated and valuable trotting horse, known as "Rocky," owned by a party in Cincinnati, became lame. The animal was treated for shrinking of the muscles of the shoulder blades, by setons, lotions, &c. and a long run at grass. The treatment extended over one year. The animal was finally purchased by Messrs. Mathews & McGibboney of this city. On arrival of the animal I examined him and found that the sweeney was occasioned by contraction of the hoofs. I recommended a different course of treatment. The feet received special attention; and now the owners inform me that they have been offered $2,000 for Rocky, which only cost them $250.

In May, 1861, I was requested to see a grey gelding, aged eight years, which had recently been purchased as sound, &c. Shortly after purchase it was discovered that the animal went lame. It was noticed that the muscles known as anterior and posterior spinati (in the region of the shoulder blade), were wasted, and it was evident that the animal had been treated for sweeny from the fact that the marks remained where setons had been introduced.

On making an examination of the foot, on the affected side I found enlargement of the lateral cartilages of the coffin bone; the lateral cartilages had undergone transformation, and had changed into bone. In the region of the foot, then, was the seat of lameness, and the poor brute had been tortured in the usual manner about the shoulder for the expectant cure of that which only constituted a symptom of organic disease of the coffin bone.

The altered structure and enlargement in the vicinity of the foot had been entirely overlooked, and it is probable that as my employer had only been in possession of the horse a short time, the creature must have been unsound at the time of purchase.

The wasting of the muscles of the shoulders, is to be accounted for in these two cases as follows:

It is a well known fact, that inaction of a muscle induces a decrease in its size. The muscles of laboring men decrease in size whenever from choice or necessity the individual leads a sedentary life. A limb kept at rest for any great length of time, always undergoes more or less atrophy (wasting). In these cases the foot diseases were of that character as to cause the subjects much pain in progression; in order to relieve the feet they spared their muscles, which want of free and full action led to diminished nutrition and wasting—atrophy. Some of our readers must have noticed the fact of the shrinkage of the muscles of the haunch in case of disease or severe lameness of one of the hind feet. This shrinkage often occurs, as in the case of the shoulder, from want of natural action and full play of the muscles concerned. We have ample proof that the wasting is the result of want of action, in the fact, that when a horse becomes the subject of a painful disease in the hind foot, he neither advances nor rotates the limb any more than he can possibly help—but holds the foot up. On examination, the atrophy or wasting is confined to the muscles which perform these two actions; and in the case of lameness or pain in one of the fore-feet, the same faulty action is observable, and the same class of muscles (whose action is almost identical with that of the hind parts) are the ones affected.

I deem it of great importance that husbandmen should fully understand this subject, for it will enable them to perceive that—while inflating horses' shoulders with a quill, or practicing any other absurd treatment in the vicinity of the wasted or sweenied shoulder—they are overlooking the real malady (in the foot), and at best are only treating symptoms. On careful examination, however, should it appear that the patient is free from any disorder of the foot or feet, and on the other hand it is clearly evident that myositis, or myalgia, of the muscles exist, then the treatment must be directed to the affected parts—the facts in either case can only be determined by a competent practitioner.

In view of sustaining the proposition that *Sweeny is a symptomatic affection*, I might introduce a great number of cases that have come under my own observation; but I do not wish to bore the reader, nor inflict a long article on him; therefore, I submit the preceding cases as a sample of all the rest which I might offer.—The malady may be of a different grade or character, but the primary disease, of which sweeny is the result, originates often in foot lameness.

I now propose to show that sweeny is not always a symptomatic affection.

I have often noticed that when horses have been over-driven, or over-worked, they become stiff and lame in those parts of the body most susceptible to the ordinary influences; for example, one horse may perform a long journey with a weighty man on his back, and the next day the animal shows symptoms of lameness in the lumbar region; his back is arched; the limbs are brought under the centre of the body, and every movement indicates that the animal suffers tormenting pains which are located in the muscles of the back; this is myositis, or inflammation of muscular fibre; sometimes, however, the malady constitutes myalgia—muscular pain and spasm unaccompanied by inflammatory action.

Another horse may be put to a similar kind of work, and in a few hours afterwards he is found very stiff and lame; but the symptoms are not the same as those just recorded; the pathology is probably identical; it is the same disease, only it has a different locality—it is myositis of the pectoral muscles, involving also the muscles of the shoulder blades. And the intelligent owner of the afflicted animal will notice that his fore extremities are unnaturally advanced; the foreparts of the body are unnaturally hot and tender; the fore-feet are feverish, and the hoofs are hotter than usual; the advanced position of the fore extremities and shoulders, give a very marked hollowness to the forepart of the chest, and many men, on seeing such a case, would declare that the animal was chest foundered, this being the name which is sometimes given to such a condition; but really it is owing to myalgia—muscular pain and stiffness.

It is well known that all muscles are subject to inflammatory action and muscular pain from work disproportionate to their strength; for example, let any man undertake to saw wood, practice with heavy dumb-bells, or ride on a horse—feats that he has never been accustomed to—and whether the labor be excessive or not, the individual will shortly complain of more or less muscular pain, and if he be a weak man the more excessive will be that pain. Now, the muscles of the horse being just as susceptible to pain as those of the man, are just as easily operated on through the well known exciting causes.

In the case of a horse, when the work has been very excessive and of a character to bring the muscles of the shoulders, their tendons and

coverings into a state of over-exertion, it will often be found that some of the muscular fibres in the region of the shoulder, are fractured, small blood-vessels are ruptured, and other pathological changes take place, this is followed by inflammation—myositis. Suppose, therefore, a horse shows symptoms of myositis after excessive work, and in the course of a few days it is noticed that the muscles of his shoulders are wasting away, and they continue to waste, so that all persons who examine the animal pronounce him sweenied—we may then infer that the wasting (sweeny) is not symptomatic, but is the result of myositis, the principal treatment for which is, rest; afterwards diminish the work, and by proper diet and tonics increase the power to do it.

## WESTERN RESERVE CHEESE.

Milo Sutliff, a cheese dealer, of Cleveland, issues the following instructions to the dairymen of Ohio:

Wishing to impress upon your minds the importance ot the cheese trade, and the manner in which it can be preserved and increased, I beg leave to offer for your consideration some facts and suggestions that I hope will receive your attention. You are, undoubtedly, aware that a large share of the best cheese of the State of New York has for years past been shipped to England. The shipments of last year came nearer to the English standard of good quality than those of any former year. The English know what good cheese is, and are willing to pay liberally for it. Our cheese dairymen cannot bear it too strongly in mind, that to get high prices in England, the cheese must be good and arrive in good condition. That you may fully understand what kind of cheese and packing are required for the English market, I beg leave to offer some suggestions in regard to the manufacture and manner of shipping. It is not so much to communicate anything new as to the manufacture of cheese, that I address you, as it is to impress you with the importance of attending to the old and well-known rules like the following:

"Take great care to keep the milk cool and sweet; deprive it of all animal heat before commencing the manufacture. Avoid all use of the skimmer. Color the milk slightly with annatto, to give it a rich, creamy look. Do not preserve or use the curd of the rennet, as it gives the cheese a bad flavor; it is most objectionable. Be sure your salt is pure, and free from all lime or other impurities, otherwise your cheese may be discolored, or greatly deteriorated in value; for the same reason, see that no paint gets off your tub or vat. Do not fail to use sufficient salt to preserve the cheese under any and all circumstances, but avoid a dry and mealy cheese by oversalting. Scald evenly and thoroughly. Work the curd well in the tub. Get out all whey; use a strong press.—Above all things, do not make slack-salted, slack-scalded, soft and mushy cheese—neither porous nor spongy; have them well cured, rich, firm but mellow, mild and clean, flavored, with a smooth, bright, handsome exterior, and then you have the perfection of good cheese."

## HOG CHOLERA.

Dr. E. M. Snow, of Providence, Rhode Island, recently read before the annual meeting of the Medical Society of that State, an "Address on the Epizooty lately Prevalent among Swine." We find the following synopsis of it in the *Boston Medical and Surgical Journal:*

Post mortem appearances: Purpuric spots upon the skin, and sometimes also upon the serous membranes; ulcerated spots upon the feet and legs, and in the mouth, in four out of six cases; lungs hepatized to a greater or less extent, with pleuritic adhesions; stomach and small intestines for the most part healthy; the large intestines most frequently diseased, being in five cases ulcerated, and in six somewhat inflamed and softened; kidneys in every case pale, of a yellowish color, and shown by the microscope to be fatty; urine albuminous; heart, liver and bladder healthy.

It is a disease of the blood, producing a depraved condition of the system not unlike that of typhus fever. Probably it is nearly identical with the disease called murrain, or with the pleuro-pneumonia of Great Britain and New England.

The causes are: 1. An epidemic atmospherical poison. 2. Local circumstances adapted to receive and propagate the poison existing in the atmosphere, such as impure air arising from filthy and crowded pens, together with unhealthy food and the want of pure water.

The treatment recommended is, the support of the system by stimulants and tonics, pure air, pure cold water, and healthy, nourishing food.

Packing Butter.—A Chicago merchant who deals largely in butter, gives the following directions for packing:

"In packing butter, be careful to select butter of one color for each firkin, work out all the milk, use fine dairy salt, and not so much of it as to spoil your butter, weigh your firkin, giving good weight, and mark the weight on the firkin, and when filled head it up, and nail the hoops so as to keep them in their places; and if kept in a cellar, place them at least a foot from the ground or floor, to prevent the dampness of the cellar from staining them; and when you ship mark them as little as possible, for it affects the sale of the butter from one-half to one cent. per pound. In the condition in which the packages arrive, packers of butter will find by observing the above suggestions that they will often realize sufficient above the market prices to pay the freight and commissions on their butter to Chicago, or even to an Eastern market."

## FISTULOUS WITHERS IN HORSES.

BY G. H. DADD, V.S., ST. LOUIS, MO.

CAUSE OF FISTULOUS WITHERS.—Various are the causes assigned, by veterinary writers, for the origin of fistulous withers; but it may be laid down, as a general rule, that this accidental, local affliction, is occasioned by local injury inflicted by a bad-fitted collar or saddle; which, one or the other, are continually worn, and are constantly augmenting the irritation. In fitting a collar or saddle to a horse's back, or shoulders, the harness-maker should study the conformation of the parts to be fitted, so as to distribute an equal pressure on all the bearing parts. Unequal pressure is usually attended or followed by local injury, inflammatory tumor, and suppuration; and the result is "fistulous withers."

NATURE OF FISTULOUS WITHERS.—In the first stage a tumor, or inflammatory swelling, varying in size, is observed in the dorsal spines, just at the top of the shoulder blade; it appears hot and tender, and resembles a common boil; after a short time it suppurates, and then may be considered as a common local abscess; soon the matter accumulates, and then is apt to spread and burrow in various directions, and instances have occurred where the matter has burrowed beneath the scapula, and found its way to the point of the elbow. The fistulous condition, however, does not exist until the matter, by absorption, has created several canals, or "pipes," as they are sometimes called; the skin is then also broken and we have a real case of fistulous withers.

Occasionally the matter becomes so acrimonious and morbid that it acts on the spines of the dorsal vertebræ, and parts of them undergo ulceration, become detached, and finally have to be removed. In some cases of this character the stench arising from the same is almost intolerable, and at times the discharge is very copious, and in running over the shoulders denudes the parts of hair, and occasions superficial sores. The acrimonious and morbid condition of such matter is probably owing to a bad habit of body, or vitiation of the solids and fluids which must be corrected by tonics, alteratives, and suitable diet, ere the disease can be arrested.

TREATMENT OF FISTULOUS WITHERS.—When the small tumor (skin unbroken) is first discovered, a cold water dressing is to be applied, by means of a bandage. I usually apply a wet sponge, and confine it to the spot with a surcingle, frequently wetting the sponge. The patient should be confined to a light diet, and receive, in the form of drench, six drachms of *nitrate of potass* (saltpetre). After the lapse of twenty-four hours, should this treatment fail to reduce the tumor, and it has increased in size, it may be inferred that suppuration has commenced, and matter is forming beneath the skin. So soon as matter, or pus, can be detected (its presence may be known by the softening and fluctuation), I advise that an opening be made into it at its lowest margin, and large enough to admit of a free and complete discharge of its contents; the cavity should be syringed out two or three times, with a small quantity of fluid extract of blood-root. It is important that this orifice should be kept open for several days, or until the discharge has about ceased. This is the most rational method of treating a case of this character in its early stage. The same rule applies to the treatment of all abscesses wherever situated, viz., whenever matter can be detected it should be immediately liberated, lest contiguous parts be injured.

In some cases, however, a spontaneous abscess makes its appearance in the upper region of the shoulder blade, and often both sides are the seat of the same. They cannot be traced to any local injury, for I have often known them to occur in colts that had never been harnessed; therefore I term them *spontaneous*. In such cases I have found it best not to be in a hurry to open them, for suppuration is generally tardy, does not do much damage, may depend on morbid habit and morbid action; which may be corrected by a few doses of iodide of potass and golden-seal; the dose of the same being as follows: Iodide of potass, fluid extract of golden-seal—four drachms per day. The local application in view of exciting absorption is composed of:

| | |
|---|---|
| Tincture of Iodine, | 2 ounces. |
| Tincture of Blood-root, | 8 ounces. |
| Oil of Cedar, | 1 ounce. |
| Sulphuric Ether, | 1 ounce. |

Mix, and rub into the tumefaction a portion of the above, twice daily. After a few days' trial of the above and the tumor does not decrease, but rather augments, the treatment must be discontinued; and if it be deemed advisable to open the abscess, it can be done by means either of a lancet or seton. The after treatment consists in cleansing the parts, and in securing an open orifice at the lower part of the tumor, which will act as a drain to carry off the matter as fast as it is secreted. I sometimes inject, by means of a syringe, a small quantity of pyroligneous acid daily, which acts both as an astringent and antiseptic.

In all cases of fistulous withers where the bones are involved, or fistulous pipes run in various directions, I advise the owner of the animal to secure the services of a veterinary surgeon, for, it is impossible to put on paper all the information which the peculiarity, or emergency, of the case may require.—[*Stock Journal.*

## HORSE DISTEMPER.

BY GEO. H. DADD, V. S., ST. LOUIS, MO.

The stablemen of St. Louis inform me, that in the spring they usually expect to have a number of sick horses; their malady seems to be a sort of climatic affection, which has received the name of "distemper," and their statement is verified from the fact, that at the present moment there are quite a number of cases in this city. Such cases do not often terminate fatally, when treated rationally, or rather, when rational treatment is commenced in the early stage; yet in spite of the best of treatment they will occasionally die. The disease is precisely similar to that which I have observed to prevail in Massachusetts and other States.

SYMPTOMS OF THE DISEASE.—The first symptom noticed by an ordinary observer, is, the animal appears dull, and does not feed well; seems weak; and his head droops, and is held within a foot, or so, of the stall floor; this condition alarms the owner, and he secures the services of a surgeon, or takes advice from his friends, and practices accordingly.

When called to a case in the above stage, I have observed the following symptoms: Head pendulous; respiration slightly accelerated; visible surfaces tinged yellow; tongue coated with a white fur on the margins, and brown in the center; breath fetid and offensive; the patient is usually so weak that it is dangerous to back him out of the stall. My experience with this disease, is, that it is very prostrating, and as it progresses, the heart, lungs and brain become congested; or, in other words, the blood recedes from the surface to the internal organs, leaving the external surface of the body cold, and trembling or shivering is then observed. In this stage stimulating medicine must be used freely, in order to excite the heart's action, and thus equalize the circulation, and in the meantime the body must be clothed, the limbs hand-rubbed, and counter-irritants applied to the sides of the chest and throat.

This form of treatment is recommended so long as congestion lasts, or until activity of pulse and respiration is observed, and the natural heat of the body returns; then we omit stimulants and treat the case according to its indications. For example—a malady of this character is apt, finally, to spend its force on organs or parts of the body most susceptible to disease. Hence in a stable where I have had ten patients, the terminations of all the cases were different; some would have dropsical swellings of the breast, sheath and limbs; others enlarged lymphatic glands, which finally suppurated; others had suppurated laryngites; one died of dropsy of the chest; another of pulmonary apoplexy, &c., &c. Yet when first attacked, their symptoms were all precisely alike, as I have just described.

The disease occasionally runs into the typhoid stage, and the visible surfaces become livid, and other alarming symptoms set in; in this event the exciting or stimulating plan should never be lost sight of, small doses of tincture of capsicum, with large doses of some good tonic ought to be administered freely. Should the patient have a painful cough, mustard, made into a thin paste, with hot vinegar, and applied to the chest, will relieve the patient. In cases of dropsy of the limbs or the chest, the patient requires diuretics and tonics, half an ounce of sweet spirits of nitre, with one ounce of fluid extract of golden-seal may be given twice daily, and the animal should have the privilege of moving about in a loose box or yard, if he is able.

I rarely find it necessary to practice the antiphlogistic treatment, in so far as it relates to bleeding and purging. In fact I can scarcely conceive a case (so depressing as influenza or distemper is known to be) that would require such *heroic* treatment. We require aid in our treatment in the form of pure air, suitable diet, and good nursing; and without these the best treatment may fail.—[*Stock Journal.*

THE FASTEST TROTTING.—At a race on the Fashion Course, L. I., on the 3d instant, two mares, Jilt and Lady Emma, made the unparalleled consecutive time of 2:28¼, 2:29¼, 2:30, and 2:31, to wagon. Neither Flora Temple nor George Patchen ever made so many consecutive heats in the same time. The old Field Marshal himself, the veteran Hiram Woodruff, who, for the last quarter of a century, is so intimately associated with the trotting history of Long Island, and who has piloted more horses to victory than any other driver living, and who drove the winner of this race, declared he never could have anticipated such fast consecutive time being made.

# HORTICULTURAL.

[Written for the Valley Farmer.]

## The Kirkbridge White, or the Yellow or White June Apple.

Downing describes the Kirkbridge White as follows: "Tree of rather slow growth; an early and abundant bearer. Fruit below medium, oblong ovate, very irregular, ribbed; skin yellowish white; stalk short and small in a narrow cavity; calyx small and closed; segments long, reflexed; basin narrow; flesh white, tender, juicy, sub-acid; ripe soon after the Early Harvest, and continues in use four or five weeks; popular in some sections of the West."

Elliott describes it thus: "Medium in size or rather large; oval; ribbed; tapering equally to each end, and blunt at the ends; skin smooth, pale yellow; stem short; cavity and basin both very narrow; flesh very tender, sub-acid, fine grained; good latter part of summer."

Henry Ward Beecher, in his "Fruits, Flowers and Farming," gives the following:

"Not found in any catalogues but those of Western nurseries. Tree upright, wood strong and stubbed; grows slow while young, but vigorously when fully established; ripens its wood early in autumn; not subject to frost-blight; bears moderately young and is very productive. *Its fruit ripens in succession for six weeks from first of July to middle of August*, and is peculiarly valuable on that account; color nearly white; it is largest at base and tapers regularly to the eye, and is ribbed; flavor mild, pleasant acid; flesh melting, and, if fully ripe, breaks to pieces in falling to the ground."

At the meeting of the Illinois State Horticultural Society, held at Chicago in December, 1861, this fruit, under the name of the Yellow June, was added to the list for trial. The following testimony was given concerning it. Mr. Kimball, of Rockford, said it was very successful in his locality, and a special favorite with train-boys. Succeeded the Red June. Dr. Haskell had seen the same apple under the name of Kirkbridge White. Mr. Beeler, of Indianapolis, said the description was that of the Kirkbridge White of his section. Several knew it as the White June.

At the meeting of the Missouri State Horticultural Society, at St. Louis, in January, 1862, the following testimony was given concerning the Kirkbridge White: Dr. Morse said it was a fine thrifty tree, its fruit good, of fair size, and a fine yellow color. Dr. McPherson had had it in bearing five years. Its growth was peculiarly beautiful—in the shape of a vase—could get perfect fruit from it every day for six weeks. Mr. Votaw had seen the apple at the mouth of the Meramec and elsewhere, and thought well of it.

Thus much I have been able to find concerning the above apples which I suppose to be identical. The description given by Elliott is not quite in agreement, but otherwise I see no conflict of testimony.

My own experience with it is equally satisfactory as to its merits. It is, and has been for more than a generation, a favorite apple in this locality. It is a hardy, long-lived, and fruitful tree; not large but handsome. The fruit is not large, but nearly always fair, tolerably early and of good quality. It ripens with me a little after the Red June. It is an early bearer: a tree four years in the orchard has a fair crop this year. It is very prolific; its tendency is to over-bear, making the fruit too small for some purposes. I have just gathered 30 barrels from 10 trees, leaving a large quantity of over-ripe and small fruit which was unfit for shipping. Three barrels of saleable apples I consider a very good yield, one tree with another.

FARMER FREEMAN.

---

PRESERVING DAHLIA TUBERS.—A correspondent of the *Journal of Horticulture and Cottage Gardener*, writes as follows: May I be permitted to offer a simple suggestion relative to the preservation of Dahlia roots during winter? Though carefully dried before storing away in the autumn, I used continually to lose them by the rotting of the crown, till at length the idea one day occurred to me that the mischief was occasioned through the decay of the long stalk left attached to the tubers: this becoming partially charged with fluid kept the crown constantly wet. My remedy has been, not to leave more than four inches of stalk; from this to scrape the whole of the outer covering or bark, and at the base to make a small opening which permits any watery deposit to escape. The result has been that I have preserved the whole of my tubers, while experienced gardeners around me have complained of loss, notwithstanding that every precaution from damp or frost had been taken."

### Pomological Terms Explained.

The *American Fruit Culturist* gives the following explanation of Pomological terms:

Alburnum—The sap-wood as distinguished from the heart-wood.

Border—Artificial bed of enriched earth.

Callus—Ring or swollen portion formed at the base of a cutting by the descending cambium.

Cambium—The soft wood, newly forming beneath the bark.

Canes—Long, bearing shoots; applied to grapes and raspberries.

Clipping—Trimming down to some definite shape.

Coxcomb—Applied to the form of strawberries when much compressed at the sides.

Crenate—Notched or cut around like rounded or blunt saw-teeth.

Dwarfs—Trees made diminutive by grafting or budding upon stocks of small growth.

Espalier—A tree trained flat upon a trellis.

En quenouille—Training to produce fruitfulness, by tying the branches downwards.

Fibrous roots—The smaller, branching, or thread-like roots.

Forcing—The early ripening of fruits by artificial heat under glass.

Fore right shoot—The terminal shoot of a branch.

Head back—To cut off the limbs of a tree part way down.

Lay in—Applied to selecting and fastening to a trellis or wall, new branches or shoots.

Lay in by the heels—To bury the roots of trees temporarily in a trench.

Leading shoot—The longest or main shoot of a limb or tree.

### PRUNING TREES.

The *New England Farmer* goes in for "thumb and finger pruning;" that is, removing the shoots as they appear, when yet tender, as can easily be done with thumb and finger. The *Rural New Yorker* gives an instance in which a hedge was destroyed by close and constant pruning. In this case the main growth was interrupted. But where the main current of the tree is left unimpeded, this, we know, by a thorough experience, is a most excellent way of treating orchards. To remove large branches is too severe a shock to the tree. The small shoots removed are little felt by the tree, and divert the full growth into the branches where it is wanted. I have never seen healthier trees than those treated in this way, and uniformly. By pruning in this way, and keeping the tree free from insects, and destroying all fruit-harboring insects, a clean, healthy tree will be the result. As age advances, I lessen the limbs; that is, after a tree begins to retrogade, when age reduces its vigor. Not only the shoots, but now and then a branch should be removed. At this season of the tree's life some people remove the old limbs gradually and encourage new shoots, thus, as it were, rejuvenating the tree. To lop off the limbs at this critical period would seem to be fatal. But as the vital powers are lessening, it but falls in with the habit or condition of the tree, and certainly concentrates upon the other branches the failing forces—thus promoting increased vigor. The shoots also, showing the tendency of nature, may be encouraged—though on this point it might perhaps be as well to plant a new tree—to raise a shoot from a new root as to grow one on the old stock. F. G.

[Reported for the Valley Farmer.]

### Meramec Horticultural Society.

ALLENTON, August 7, 1862.

The forty-fourth monthly meeting was held in the house of Mr. T. R. Allen. The President in the chair.

The minutes of the former meeting were read and approved.

The Corresponding Secretary reported having received a package of turnip seed from the U. S. Patent Office, which was distributed among the members.

The Executive Committee reported for discussion at the next meeting, "The Articles on Exhibition."

The Fruit Committee reports: Mr. L. D. Votaw exhibits four varieties of Seedling Apples; two varieties he values highly for their regular bearing, not having failed to bear for twenty years. The Society thinks them hardly worth propagating. Summer Rambo, by Mr. T. R. Allen and Mr. Davis, an excellent cooking apple of very good appearance; a good summer apple for the kitchen and market. Mr. W. Harris has fine specimens of the Golden Sweet; cooks well and is thought a valuable apple. Mr. Muir has some fine samples of the Keswick Codlin, which he values very highly for cooking, and especially for jelly.

Mrs. J. C. Blakey sends us specimens of very fine pears wanting a name; they are very perfect, and (all agree) good; we think it is the Tyson.

Mr. W. Harris shows some very good specimens of the peach. The Large Early York, excellent. The Link peach (a native of this county), cling, not quite ripe, good size, and the Concord Grape, which has rotted considerably with him this season.

Mr. Allen has the Early Northern Muscadine Grape, ripe, and again shows us the Willow Twig and Pryor's Red Apples of last year. We must certainly consider the Pryor's Red claims to rank as a good keeper.

A. W. MCPHERSON, Ch.

Flower Committee reports: One boquet presented by Margaret Muir. W. MUIR, Ch.

Vegetable Committee reports: Pale Red Sweet Potatoes and Fejee Tomatoes by Mr. W. Harris. The sweet potatoes small and spoiled by the second growth. The tomatoes seem superior as an early variety.

THE FRUITS ON THE TABLE,

Being the subject under discussion, Mr. Votaw said that he valued one of his seedlings as being a regular bearer of fair fruit; only one side of the tree

bore at a time in alternate years, and the fruit hangs long on the tree.

Mr. Allen—The Summer Rambo is a good apple for its season, rather a spare bearer; its coloring would make it a good market apple.

Mr. Davis—Has two old trees of the Summer Rambo, they have been ripe about three weeks, and they bear full crops.

Mr. Harris—The Golden Sweet cooks well; it is now about ripe; is a really good apple.

Secretary—The Keswick Codlin is a fine cooking apple, has been used in this way a month ago, and will keep till October; cooks to a perfect pulp; its good size and very small core, and coming during the dry, hot season, makes it an excellent drying apple, while for JELLY it has no equal.

Mr. Allen—I think it strange that there are none of Dr. McPherson's fine Kirkbridge White Apples on the table.

Dr. McPherson—I have to apologize for this seeming neglect, but had not time to go to the orchard for them and also the Duchess of Oldenburgh, as I intended. The Kirkbridge White has borne a very fine crop of fine fruit. We have used them for cooking for a month; the birds are worse upon them than any others. I have also the Duchess of Oldenburgh, a large-sized, fine colored fruit; is good for cooking; handsome, showy; and these qualities, with its large size, will make it a fine market fruit; it is rather coarse in the grain, but requires little or no sugar.

President—I have been paying some attention to the Kirkbridge White; it has been long known, much esteemed, and largely cultivated in Illinois as the White June. We had it cooked in pies at the July meeting. I took some this week to the President of the State Horticultural Society, and he admired it much.

Dr. McPherson—It is altogether one of the most desirable apples I have; it cooks when very small; ripens gradually over a long period, and forms one of the most regular and handsome trees, and is a good apple to sell in St. Louis.

Mr. Allen—Early Northern Muscadine Grape was purchased from a peddler for the Concord for a dollar and half. I have tasted better fox grapes in the woods; would not propagate it much, but like to have a vine; it is early, healthy, hardy, large berry, small bunch, and hangs long on the vine.

Mr. W. Harris—This Concord is unripe, was brought only for the rot. It rotted badly, and where it has not ventilation it rots yet. I think that it is due to the Concord to say, that it has rotted mainly, and this second time in particular, in consequence of the want of proper ventilation. The first attack was commenced when it was not properly tied up, and this second attack is upon the vines that have been layered and are choked up with tall weeds.

Mr. Allen—Has his Concords on the ground among the weeds, and has seen no rot.

Mr. W. Harris—There is also much difference in the soil; mine is rich, black soil, yours is lighter and more elevated.

Considerable conversation was had upon summer pruning fruit trees, and upon the composting and use of night soil.

The President announced the next meeting to be held at the house of Mr. L. D. Votaw, at Eureka, on the first Thursday of September, at 10, A. M.

WILLIAM MUIR, Sec.

---

☞ Shoeing hens avoids the necessity of hen-yards and tight fences. Small woolen bags tied over their feet will answer every purpose, and they may be allowed their liberty all summer, and will lay better for it, and even the garden and field will be kept clean from many worms, bugs, flies, and other vermin that injure vegetation. But for their scratching, hens do little harm and much good on cultivated grounds.

[Written for the Valley Farmer.]

## The Mo. State Horticultural Society.

[Proceedings continued from Aug. No.]

SWAAR.

N. J. Colman—It is a fine yellow apple, very heavy, as its name indicates; it has a peculiar and the highest flavor of any apple.

HUBBARDSTON NONESUCH.

Mr. Kern—Much like the Red Canada; is very good.

N. J. Colman—I think it should be put upon the list as promising well. It has succeeded well where it has been tried.

Mr. Mudd—My experience here has not been very great, but I put it as first-class as to flavor; tree strong, and produces well: October to December it is at its best. I have it in this county 250 feet above this, and it does well there; its superior flavor recommends it as a family apple.

Mr. Flagg—How will it compare with others of the season?

Mr. Mudd—Very well. It is of good size and fine color.

President—Thinks it handsome and of fine flavor.

Mr. Kern—It is very popular at Alton. I have noticed it this last fall. It commands a high price in the market; knows no better apple in its season; comes rather after the Rambo; better than the Rambo in flavor; a good grower.

Mr. Flagg—Mr. Starr, of Alton, said he could not do without it.

WHITE WINTER PEARMAIN.

N. J. Colman—It is grown here by Mr. Mudd, and is on the table. It does better in Illinois than here; it has been liable to speck during the last three years; this may perhaps be remedied by cultivation; perhaps a clay soil will suit it. The spots do not go through the skin. Trees grow well, and make a strong growth as young trees.

President—The growth of the trees of the White Winter Pearmain and the Michael Henry Pippin are very different.

Mr. Flagg—As to the scab on the fruit, I get more good fruit from a tree of the White Winter Pearmain than the White Bellflower, and it is a better fruit and of finer flavor.

N. J. Colman—Here are two apples both named Pennsylvania Red Streak. This is the New York Pippin, and is one of the best fruits we have. It gives excellent satisfaction in Illinois; said to be the best fruit they can raise; it is grown much there, and does well; don't know if it does well in Missouri.

President—It is a popular fruit—but don't seem to be much grown in this State.

N. J. Colman—It is not of the highest quality, but of fine flavor; is very showy and a regular bearer.

Mr. Mudd—The Baltimore Red is placed in the lists of Kentucky and Ohio as among the best for market; have one year old trees; would recommend it for the list that promises well.

President—Downing does not name it.

N. J. Colman—It is the New York Pippin, the Baltimore Red, the Ben Davis, and the Carolina.

ROMAN STEM.

Mr. Mudd—It is much cultivated in some districts in Illinois, and sells more readily than any other fruit they take to market; high flavor; keeps well; tree a slow grower—small limbs like wires—makes a compact, round head; fruit yellow, conical, sometimes one-sided, smooth, firm, fair in size from small to medium or full medium; one of the best in the country; will take a little later to bear than some; is hardy and the wood sound.

Mr. Allen—Here is an apple bought for the Rambo now pronounced the Pennsylvania Red Streak; it grows well; good bearer; fruit always sound; this is about average size. Here is the Fall Pippin, it has kept with care till this time; does not rot at the core nor fall from the tree.

Mr. Sanders—It is a fine apple and brings a good price.

Mr. Reihl—In the upper part of this State it is much cultivated, and always has taken the premium as the best fall apple; the trees are always fine.

FALLENWALDER.

Mr. Mudd—I want to explain a little in regard to a report of the Meramec Horticultural Society, where, in speaking of large apples being apt to fall from the tree, but where we can get a large apple of good flavor, &c. (such is the Fallenwalder), I was made to say such is the FULTON. I have the Fulton as an early fall apple. The Fallenwalder is a strong grower, and I have planted it largely; have known it for 10 or 12 years; have got windfalls and kept them till March

President—A neighbor of mine has some of the apples in his cellar, and up to this time they keep well. It is upon the fruit stands for the first time in the city.

Mr. Mudd—I brought this sample from Illinois, and kept it in my chamber.

President—It is grown much in this county and was sold by the Messrs. Sigerson as the Tulpahocken.

Mr. Allen—It just suits my taste, and think it would be an excellent family apple.

Several members spoke of it as a good market apple.

## PEACHES.—TROTH'S EARLY RED.

Mr. Hadley—It is the best early peach. This last season commenced ripening on the 15th July about 100 miles south of this in Jackson county. Mr. Townsend, near Collinsville, had them ripen on the 20th July. Fine flavor and size; it is the best eating peach we have that ripens early. I prefer it to the Tillotson or Haine's Early—it is earlier; it is THE peach for the early market.

N. J. Colman—It is the best early peach we have. This year peaches ripened about the 24th to 25th July, while a year ago they ripened the 12th of July. It is better than the Tillotson and is a better market peach, as the Tillotson is tender.

Mr. Flagg—I have been planting it this fall; got my trees from Mr. Townsend; he said that the earliest was the 11th July to the 15th, and the ordinary time the 20th to 25th July; he has grown them 4 inches in diameter.

Mr. Sanders—Would like to identify the fruit.

Mr. Hadley—A rather round peach, so far it is quite hardy; a certain bearer.

EARLY TILLOTSON.

N. J. Colman—Would say it was the best early peach but for the Troth—not very productive, but can recommend it as an early peach.

Secretary—Has seen and grown it, it does well.

Mr. Mudd—I planted it 3 to 4 times in Illinois, and intended to plant it last year. It sometimes makes fine fruit, but the tree mildewed with me. I don't think it should be put on the list for general cultivation. Where I planted was about 100 miles north of this, and it did not do well with me.

Mr. Sanders—The Tillotson does mildew in many cases, as all the serrate-leaved peaches do; does fine for family, and will perhaps do for market, if not too far distant.

Mr. Pettingill—I have experimented with the Troth and Tillotson, the Tillotson had not a good fruit upon the tree, and is a week later than the Troth. I still have it on trial for another year; it is not so good in quality as the Troth.

Dr. Claggett—I think it out of place to recommend any fruit that has so many objections; it should certainly be left out of the list when there are so many that do well.

HAINES' EARLY.

Mr. Kern—I have it, and Cooledge's Favorite and Honest John—Haines' Early is smaller.

Dr. Morse—I think it is as Mr. Kern says, that Haines' Early is smaller than Honest John. I think Honest John and Large Early York are the same.

Mr. Hadley—We have the Large Early York and Honest John ripening at the same time. Haine's Early ripens about a week later than Troth; and Honest John 10 days later than Troth. There is a marked difference in peaches. The Early York is longer than Honest John, both fine peaches. With me the Red Rareripe ripens at the same time; it bears shipping better than the Yellow Rareripe.

N. J. Colman—I am sure Mr. Hadley's Honest John is not the true Honest John of the books, but a large yellow-fleshed peach that succeeds the large Early York. And I think that a man getting the Honest John would not get the peach Mr. Hadley speaks of.

Mr. Hadley—When I was East for my trees I found that in the different Eastern States the same peach was known by different names.

E. B. Colman—Haines' Early is too small for a market peach. Large Early York and Honest John are distinct. My Honest John is not a yellow-fleshed peach.

LARGE EARLY YORK.

Mr. Hadley—I have said all I can say upon this fruit; it bears shipping well and sells well in Chicago. I have not lost but 6 boxes in a year upon a distance of about 400 miles, and these were mis-shipped.

CRAWFORD'S EARLY.

N. J. Colman—It is only of 2nd quality; but its large size and showy appearance, and its firmness for shipping, renders it one of the best market peaches.

Mr. Husmann—Says the fruit buds are tender and liable to be winter killed.

Mr. Allen—Would not like to eat more than one in a day, they are too acid.

YELLOW RARERIPE.

Dr. Morse—I think it one of the best peaches in my district; it is very free from insects; it ripens about the 20th of August.

N. J. Colman—The Yellow Rareripe may be Mr. Hadley's Honest John.

Mr. Mudd—Is it not the 10th instead of the 20th of August on which it ripens; with me 100 miles north of this it ripened the 10th.

Dr. Morse—It may be the first week in August.

OLD MIXON FREE.

N. J. Colman—It is one of the most profitable market fruits we have.

Mr. Kern—I think this is not entirely in succession, it is 3 weeks after those just taken up, and comes with the Late Admirable. I think that Bergen's Yellow comes in here, it is hardier than Crawford's Early and would recommend it from its succession.

N. J. Colman—I think that with me the Mixon succeeds the Crawford, and don't think there is 10 days difference between them.

Mr. Kern—I may be mistaken in its identity.

Dr. Claggett—Let us take them in the order of ripening; let us try Bergen's Yellow.

N. J. Colman—Downing says "the Crawford ripens here the last of August"—"Old Mixon ripens the beginning of September."

Mr. Flagg—Downing is a standard in NAMES, but as to the time of ripening, it was as a general thing the time of ripening on the Hudson river with him, unless otherwise noted.

YELLOW ALBERGE.

Mr. Bayles—It ripens before the Crawford. From 5 trees, $100 worth were sold last season; it comes in about a week before the Early Crawford; is not quite so large.

N. J. Colman—The Yellow Alberge, or a yellow-fleshed peach so called here, is the first peach to ripen; it ripens before the Troth and Tillotson, and is a most profitable variety for market.

Mr. Sanders—This does not correspond with Mr. Bayles' statement.

Mr. Bayles—I think the peach here better than the description of it by Downing.

Mr. Flagg—Can't vote till the identity is established.

Mr. Mudd—Is not acquainted with the Yellow Alberge; thinks Mr. Bayles mistaken as to its time of

ripening. I think if it is the earliest peach, it must be 25 days earlier than the Early Crawford.

GROSS MIGNONNE.

Mr. Sanders—Its fine size and high flavor makes it good for the family, but not so much so for market.

Mr. N. J. Colman—It is a most delicious peach; its objection is its liability to the attacks of bees and other insects.

COLUMBIA.

Mr. Flagg—I have been raised with it; think it the best for family or market; its chief objection, its time of coming into market.

Dr. Morse—It is a good peach for the family; ripens about the middle of September; Downing puts it down at the 15th.

Mr. N. J. Colman—It is not so high in favor here as in the East, and coming at the season it does, I will vote against it.

Mr. Flagg—I sent 20 bushels to Chicago, and the merchant said when he got them he could not sell them—before he had them all sold, however, he could not get enough of them.

Mr. Kern—As to the Columbia peaches they originated in Georgia, and there are numerous seedlings of them. Judging from what I have seen I cannot recommend it for market or for family.

President—This Columbia peach is a Georgia seedling, varying from yellow to brown, and in order to have it fit to recommend we must have one distinct variety to be our standard; while some are very good, others are worthless.

HEATH FREE.

Mr Hadley—The White Heath Free ripens the last of August; white flesh, a little tender, but a good peach; good flavor; fair size; would not be without it.

ROYAL GEORGE.

President—For family use would not be without it, it is one of the richest peaches we have.

PRESIDENT.

Mr. Allen—It is a large white peach; flesh rich, juicy, but tender; good for family; ripens middle of September—being the height of peach time is against it.

Mr. Pettingill—It is well to plant it for family use; think it a tender tree or shy, irregular bearer.

E. B. Colman—I have a peach which answers Downing's description, but it is of 2nd quality.

Dr. Morse—Know it in my locality in two orchards.

Secretary—Has seen it and admires it.

RED CHEEK MELACATUNE.

N. J. Colman—An excellent market variety.

CRAWFORD'S LATE.

Mr. Hadley—An excellent peach, much better than Crawford's Early.

OLD MIXON CLING.

N. J. Colman—It is a large, handsome peach, good for market.

LA GRANGE.

E. B. Colman—A fine, late white peach; white to the stone; high flavor; ripens late in September.

N. J. Colman—I desire to know something of this.

Mr. George Booth planted 150 trees and dug them up because they mildewed.

Mr. Kern—Dr. Hull says the trees got for Lagrange are Morris White; the Lagrange is later than the Morris White.

E. B. Colman—The Lagrange is a long peach; ripens the 15th to the 20th October.

MORRIS WHITE.

Mr. Sanders—A fine tree and fruit; but a sparse bearer.

LATE RED RARERIPE.

Mr. Allen—Ripens from the first to the 15th Sept.; large size; fine high color; delicious; a little tender.

N. J. Colman—Prince's Red Rareripe or the Late Red of Downing. Mr. Hadley has it and recommends it. The Magnum Bonum is a better peach at the same time.

STUMP THE WORLD.

Dr. Morse—It has borne poorly where I have seen it.

Mr. Kern—I have not grown it, but Mr. Geo. Booth has it, and they are as fine peaches as I have ever seen: white flesh, bright red at the stone, of the largest size, enormous bearer, and hardy.

W. F. Cousins—Raised it last season; it was fine before fully ripe; ripens the last of September.

N. J. Colman—One of the best late peaches.

SMOCK'S FREE.

Large; a fine late peach; ripens the first of October.

President—A yellow skin, and light yellow flesh.

Mr. Kern—It is bright yellow in Alton.

HEATH CLING.

Mr. Allen—Good for family and market.

WASHINGTON CLING.

N. J. Colman—It is one of the best and most delicious peaches we have; have known it here for a number of years; it is the best cling we have.

Dr. Morse asks if clings or frees are best for market.

N. J. Colman—Clings go to market in the best condition, but meet with poorest sales.

Mr. Hadley said, Mr. Mallett, one of our fruit-men, said, that if he had clings at one dollar, freestones in the same condition sold at three.

Dr. Morse—Dr. McPherson sells largely of freestones, and can hardly sell clings in this market.

President—I think the taste is being educated for clings, especially in the South.

Mr. Flagg—In Chicago I inquired into this; the freestones sold best, but the clings went the best into market.

BIG YELLOW.

N. J. Colman—It is the most popular late variety we have; ripens late in September; is worthy of cultivation for market; is freestone; ripens after the Heath Cling.

Mr. Redfield—Have seen it; it ripens after the Heath Cling; both budded on the same tree.

Dr. Claggett—It was exhibited last year before the St. Louis Horticultural Society, and may be put upon the list that promises well.

WARD'S LATE FREE.

Mr. Hadley—It is fair with us; sells well.

Upon the standing order of business being called, the Executive Committee recommended the "Cultivation of the Peach" for discussion—adopted.

Mr. Allen—Mr. Hadley is the most extensive peach grower; will he give his experience.

Mr. Hadley—My location is on a high hill on the west side. I plant 20 feet by 25, so as to be able to get in with a wagon. When I plant I turn the same side of the tree north that was north in the nursery. I cultivate by growing corn the first 2 years. I put lime to them once a year, and cut them back about two-thirds of their growth, so as to make them branch low. This last year I sowed clover among them, but still dig around them and worm them in the summer and fall; the lime is air-slacked. In setting out, I get the trees one year from the bud; make one main stem and low branches. My foreman trims them with the shears. If branches become too thick cut them out—sometimes cut more, sometimes less—habit and judgment direct. To get fine fruit, give air and sun.

Mr. Quinette—In planting my orchard, I get my stock in the fall, trim and bury them; dig the holes and plant in spring, by which time the cuts are for the most part healed over. I put well slacked lime and ashes to the tree; cause them to branch low.

Mr. N. J. Colman—I have communicated with many large peach growers this spring in Southern Illinois and elsewhere. They plow the ground deeply, and harrow it fine; they then put in the plow and crossmark the rows about 20 feet apart—some from 12 to 15 feet apart; they cut back the tree to 3, never more than 4, buds, to have the lowest branches 3 to 4 inches from the ground so as to be able to gather the fruit mostly by hand. They generally worm the tree twice a year; they adopt the system of annually shortening in one-half to two-thirds of the growth. As to planting, Dr. Hull, of Alton plants so as to put the crown of the tree 6 inches below the surface y

he does this to prevent the borer getting into the roots. In the body or the branches he says it does no harm. I don't think that this deep planting is the course indicated by nature. As to distance, about 20 feet apart is given by almost all, though some plant only ten feet apart; the low heads shade the body of the tree. In planting put the earliest fruit by the house, or the entrance of the orchard, so that the fruit can be gathered at once into the wagons without injuring the ungathered fruit.

Mr. Flagg—Mr. Townsend likes to plant in squares rather than in rows.

PRUNING THE PEACH.

Dr. Morse—Mr. Colman said to cut back to near the ground, but I don't like that custom, but like that of Mr. Hadley or Mr. Quinette.

Mr. Flagg—Dr. Warder cuts back to "boot-leg" height. I trim at one year from the bud; shorten in the limbs to 6 inches, sometimes less, and grow in a conical form.

E. B. Colman—Has any one practice in putting the seed and budding where they are to stand? I think this is better than moving the trees.

Mr. Mudd—Like most tree planters I don't cut so low as my convictions lead—I don't trim so short as they should be. A friend of mine in planting out trees put in some sheep among them which cut them down to about 6 inches from the ground and they were the best trees he ever had. I think Dr. Warder's plan the best.

Mr. N. J. Colman—In cutting back you get buds to start on each side of the tree, and the limbs come out all round in a circle.

Considerable discussion was had upon having a main stem or several limbs, and upon the cutting the heart-wood of the tree (which is omitted); as also upon grafting upon pieces of root or upon entire seedling stocks.

GATHERING—PACKING—MARKETING.

Mr. Hadley—I make boxes about 2 to 2½ feet long, 10 inches wide and 6 inches high; the box holds scant half a bushel; in the centre there is a partition; we put in a few leaves on the top and bottom and put in the fruit by the hand. The material of the box costs about 9 cents, the sides and ends are ⅜ of an inch thick, and the broad sides laths ¼ of an inch thick. We get for the first peaches about $3 per box. The Express Co. would return the boxes, but it is not worth the trouble. Pick the fruit when just ripe; there is about 24 hours between being ripe and mellow.

Mr. Kern—The fruit grown in Alton is shipped in baskets or boxes that hold a bushel, and are covered with leaves, and the best fruit always put on the top. Some put oak leaves between each layer of fruit, and this saves 4 to 5 peaches. Boxes are got up for 15 cents, and are never returned.

Mr. N. J. Colman—Mr. Hadley paid out in one year for boxes $1,000. The boxes are filled under the trees, and put upon the wagons and taken to the station at once.

Mr. Hadley—We pick the fruit into baskets by hand, and take it to the packers who put it into the boxes. We use the common willow market basket to gather in. They must be in every respect carefully gathered and handled as carefully as eggs. We have men to pick and men to pack into the boxes; some men make them lie better in the boxes than others. They must be put quite firmly into the box to prevent shaking and bruising.

Mr. Kern—In Cincinnati they generally send their peaches to market in the same tray boxes in which they send their small fruits.

MARKETING—STRAWBERRIES.

Mr. Sanders—I market for the city, and it is not so hard as to do so at a distance. We use the large trays similar to those used in Cincinnati; they are about 2½ inches deep, and of length and breadth to hold a bushel.

Dr. Claggett—Some ship in half gallon vessels of uniform shape packed into boxes so as not to shake. But in boxes about 20 inches by 2 feet, or in ½ gallon measures, is best to ship for a distance.

Mr. Bayles—Finds small boxes holding a quart, and costing 4 to 5 cents, best.

Mr. Kern—Small round boxes are used by Mr. Booth in Alton; they are put up in a case and sent off and returned empty.

Mr. N. J. Colman—I have seen Mr. Booth's boxes; being round they do not pack snugly in cases. Mr. Seymour, of Eureka, has boxes I like much better; they are made of light stuff, the ends thicker than the sides and bottom, with a space between the bottom and sides to let in the air and the juice out; they hold a quart, and are fitted into cases that hold 40 or 60 boxes. In these his fruit is conveyed 30 miles in fine condition. These cases have spaces for the air and can be locked up so as to secure the fruit. In the Cincinnati trays soft fruit is apt to be much broken. Strawberries are sent from Cincinnati to Chicago in bushel trays, but are much mashed up.

[To be Continued.]

## CALIFORNIA GARDENS.

The editor of the California *Farmer* reports, in his paper of the 18th of April, a visit among the gardens across the bay from San Francisco:

Mr. White is one of the big Fruit Gardeners of Alameda; he gathered the last season only *twenty-five tuns* of small fruits, viz; 11 tuns of raspberries, 9 tuns of strawberries and other small berries, currants, etc., and 5 tuns Lawton blackberries. He made 2000 gallons raspberry wine, of which we had real evidence at the tasting-cup. The prospect is grand at the present season, throughout his whole grounds.

We visited Bagge Brothers, so well known as very successful growers of the tomato, the asparagus, and many fine vegetables that have made them a name in our markets. We noticed a fine new patch of the Longworth Prolific Strawberry, that, planted this spring, were in full bloom. It is here that we saw last year that splendid new *Acacia*, one of the finest and hardiest yet known; it stood all the hard winter, while all others were destroyed. Messrs. Bagge Brothers bloomed the last season the *Yucca Gloriosa*: it threw up a spike of its beautiful fragrant white bell flowers some ten feet high, and made a gorgeous show.

The garden of G. W. Fountain, Esq., gave us much pleasure. Mr. Fountain has made himself famous for his *big strawberries*, the Longworth Prolific, of which he sold last season three boxes for $62 50; averaging $3 50 the pound, or nearly 16c. a berry, for the lot. Mr. Fountain's crop averaged about $400 to the acre for strawberries. A patch of 125 cherry trees in full bloom, surpassed anything we ever saw. Some of the trees will net $50 this season. Mr. Fountain averaged for his cherries 70 cents a pound in 1861, and 83 cents in 1860. He gives the Van Schyke and Royal Ann, with the May Duke, the high place on the list of cherries.

Mr. Fountain has met with great success with a new and valuable bean which he grew last year, raising from 30 pounds of seed, the enormous crop of *seven tuns of string-beans and 400 pounds of seed beans*. He plants largely of these this year, having *contracted*, as he informs us,

to supply *eighty tuns of string beans*. This *beats* "Jonah's Gourd" story, all hollow.

Mr. Lusk, another strawberry man, has the work laid out to *feed a hundred thousand* with strawberries. We met him teaming over his "Pipes of Wine" (Raspberry): he made 8,500 gallons last year.

## Soil for Blackberries.

A rich, deep, sandy soil is the best for blackberries. The blackberry has a large root, and penetrates deep. Like all berries, it requires much moisture. It is this which its long root is feeling for. In a clay soil it works with difficulty; but, in sand, there is hardly an end to its root. In the clearings of the Northwoods of the Empire State, berries of almost all kinds are found. Thousands of acres run up to berries, large tracts in a single body. The soil here is almost exclusively sand. Little grows except light timber and berries. The berries are the most luxuriant, in stalk and fruit, I have ever seen, of spontaneous growth. There seems scarcely an end to the roots in this light, loose soil. Even in such leachy soil, composed almost wholly of sand, the drouth has less effect on the berry than in richer, more compact soils. A loose, deep, rich soil, then, is the thing for berries—raspberries as well as the blackberry. Remember, such a soil cannot take too much water, and berries require an abundance. This done, and room made for the shrub, and all grass and weeds kept out, the work is done. F. G.

## THE PÆONIA FAMILY.

There exists with many a very erroneous idea in regard to the hardihood of the extensive family of Pæonies; and because many varieties have been obtained from China, whose southern boundary is about 20° north, they have adopted the idea that many of the varieties are somewhat tender; whereas, the portion of China where these Pæonies are found indigenous, is 56° north, and the regions of Tartary and Siberia, which produce the larger number of species, are still further to the north. In fact, the entire family of Pæonies may be ranked among our most northern flowering plants.

The magnificent varieties of this class having attracted so much attention the past year at the European Floral Exhibitions, I have deemed it would be gratifying to your more northern readers to present a summary of the different species, and more especially of the gorgeous varieties which Europe and America have received from the (so called) barbaric countries, China and Japan, and which have been presented to the floricultural amateurs of the world as the result of their scientific labors at a period when Europe was actually in a state of barbarism, and long antecedent to the period when any of the nations *we call civilized* had ever blended the pollen of flowers, or produced any new variety by scientific or artificial means.

The most important and splendid species of this family is the "*Moutan or Tree Pæony*" of China, growing to the highth of three to four feet, and expanding its roots and shoots so as to often cover a space of ground five to eight feet in diameter. Of this species there were introduced from China, in 1789, three varieties—the *Banksii*, the *Papaveracea* and the *Rosea*.

It is related that Lord Macartney's embassy, in 1795, saw a collection comprising 240 splendid varieties of the *Moutan*, yet it was not until the recent visit made by Robert Fortune to that country, that any new varieties were obtained. Of these, twenty-three have been flowered, named and described, and they are now to be found in many collections. As it takes from four to five years before a seedling becomes a blooming plant, and even then but one in many will be a superior full double variety, we may form some idea of the immense period that must have elapsed during which there was produced here and there, among the most scientific amateurs of China, so many new varieties that a selection of 240 most exquisite and *recherche* varieties could be made, and afterwards increased and disseminated throughout that mighty empire. I wish to here premonish your readers that this species is a native of Northern China and Tartary, where the mercury sinks as low as in the most northern limits of our own country.

The next species, in point of importance and splendor, is the "*Albiflora*," of Siberia and Tartary. It is a tuberous, herbaceous species, growing to the height of two and a half to three feet, with very large single white flowers. It was obtained from China in 1784, and three double varieties were imported thence in 1790—the *Whitleji, Humea and Edulis Vel Fragrans*.

It is of this species that very numerous varieties also exist in China and Japan, and from which the French and Belgian cultivators have produced above 200 most admirable varieties, and ourselves about 50 varieties. It is a subject of amazement to what an extent the varieties of this magnificent species have been multiplied, combining every hue within the limitation of nature, several varieties of which have yellow and straw colored flowers. They are all so rustic and easy of culture that none can fail in having fine flowers, and the plants will become so enlarged as to afford hundreds of flowers, from one stool, and the roots may be subdivided to any extent.—[*Rural New Yorker*.

The Grape Rot on Kelley's Island.—The grape rot on Kelley's Island prevails to a much greater extent this season than ever before known. Mr. George C. Huntington, a grape grower and close observer, in a note to the *Register*, from the Island, dated August 2d, says: "Whether the excess of rain, the present season, is the sole cause of the rot, or whether it is in any way connected with it, close observation for a number of years can only determine.—Should the disease proceed no further, we shall still have half a crop of Catawbas, and a very large and full crop of Isabellas."—[*Herald*.

[Written for the Valley Farmer.]

## Exterminating Insects.

Strong tobacco water will destroy insects: it is the almost universal remedy; and has been in use from time immemorial. Other ingredients are sometimes added, as soap, ashes, &c.; but tobacco alone is sufficient.

Steep your shrubs, or the branches of your trees, in the liquor. The task is not so great as one would imagine. This will destroy the insects; but it will not clean them out. The fruit which contains the egg, and which the tobacco will not materially affect, will give you a crop of insects the following year, unless you destroy the crop.

Some recommend picking the fruit when charged with the larvæ, and burning it; others feed it to the hogs. Once done, the remedy needs no repetition. At least this is the case in most instances. Other insects may gradually work their way to the trees again, as was the case with your present crop.

It will pay to clean your trees from insects. This is the almost universal testimony. Of course a careless man will neglect his trees. He will neglect their pruning: he will neglect them at any rate. These remarks apply to those who are willing to labor to save their fruit. We must not wait for miracles, or the interposition of Providence, to clear our trees of vermin. Our own efforts must do it, or it will not be done. Sometimes it is necessary to take up shrubs by the roots and burn them. This is better than to continue the plague when remedies are ineffectual. A man must toil if he wishes to succeed, whether mentally or physically. F. G.

[Written for the Valley Farmer.]

## Deterding's Early Red Apple.

An apple under the above name, raised by Henry Deterding, residing on the American Bottom, three or four miles above Venice, Madison county, Illinois, has attracted considerable attention from orchardists and nurserymen; who have generally, however, upon examination, pronounced it to be the Red Astrachan. From this opinion, I am, after a personal examination, inclined to dissent.

I have examined the present year two specimens each of the Red Astrachan and of Deterding's Early Red. Of the Red Astrachans, one specimen was from the grounds of N. J. Colman, five miles back of St. Louis—the tree coming from Ernst, of Cincinnati; and the other from the garden of E. M. West, of Edwardsville, Ill. —the tree coming from Rochester, N. Y. Of the Deterding's Early Red, one was from Mr. Deterding's orchard, the other from the orchard of J. J. Kinder, residing in Ridge Prairie, Madison Co., Illinois.

In comparing these four specimens, I found the Red Astrachan, a flat apple, somewhat ribbed, with a short stem. Deterding's Early Red was a roundish conical, or conical apple, not ribbed, and having a longer stem; and as this difference appears in different specimens, from different sources, or on differing soils, I am inclined to believe that the apples are not identical.

It is possible, however, that the Deterding's Early Red may be the Red Astrachan changed by a long experience of our soil and climate. It has been in Madison county I think over 30 years. But, as the Red Astrachan, as Downing tells us, was not introduced into England (from Sweden) until 1816, and must probably have been some years later in reaching America, it is not probable that it was in Illinois as early as 1830.

Perhaps some of the numerous readers of the *Valley Farmer*, or the editor thereof, may be able to throw more light on this pomological subject. Farmer Freeman.

Remarks:—We have very great respect for the opinions of our intelligent correspondent. We shall have to differ with him, however, in the present instance, in his conclusions. In a former letter from our correspondent he informed us he believed the two apples were not identical. We immediately went over to Mr. Deterding's orchard. The tree has precisely the same shape and habit of growth that the Red Astrachan tree has. It likewise ripens its fruit gradually for a long period like the Red Astrachan —which some of the members of the Missouri Fruit Growers' Association think is a great virtue—but which we consider a serious defect in a market fruit.

Mr. D., with three or four of his men, were gathering the apples for market when we were there. The gathering was done as follows: Two men held a sheet of unbleached cotton, about six feet wide and ten feet long tacked at the ends to strips of wood, under the tree, breast high. One man in the tree shook the limbs over the sheet to get off those apples that were ripe, and another with a long pole pushed and knocked them off. As fast as the apples fell, the sheet was lowered on one side and the apples slid off on the ground. The trees had been all gone

over in this way four times when we were there, and Mr. D. informed us he would have to go over them a great many more times before they were all gathered.

This is the great objection to the Red Astrachan as a market fruit. The Early Harvest can all be gathered at once, and consequently is more desirable. Mr. D. has had great success and profit from this variety of apples. We are certain it is the Red Astrachan, however. We took over with us specimens of the Red Astrachan and could see no difference in their appearance nor detect any difference in their taste. We are satisfied that, if our correspondent had had the same opportunity for thorough inspection and examination that we have had, he would not differ with us. It is considered, however, by many, as a distinct variety, and has acquired considerable celebrity for the amount of revenue that has been derived from the fruit in the St. Louis market.

FLOWERS.—Longfellow speaks of flowers as stars, which on earth's firmament do shine, and Mrs. Childs beautifully says, that she has often thought that flowers were the alphabet of angels, wherewith they write, on hills and plains, mysterious truths.

## SAP GRAFTING.

A correspondent of the *Journal of Agriculture* describes a method of grafting which he thinks preferable to that ordinarily practiced. It is substantially as follows: After the limbs to be grafted have been sawed off, the stump is pared smoothly so that the line between the bark and wood may be plainly seen. If the bark is thick it is made somewhat thinner by paring, so that it may be split easily when it is to be opened for the insertion of a scion. With a twig from which the bark has been stripped, and the end cut in wedge form, about the size of a scion, places are made between the bark and wood for the insertion of as many scions as it is desired to set in the stock. Scions with two good buds are sharpened by a straight, smooth slant, all on one side, about three-fourths of an inch in length, and inserted in the places made for them, with the cut side to the wood of the tree. The wound is then covered with grafting-wax, an extra thickness being placed round the scions to keep them in place. It will be seen that this method is similar to that which has been practiced under the name of shoulder grafting. It evidently has some advantages. If the scion does not *take*, the stock is not much injured, as the slight wound made in the insertion of the scion will heal over in one season.

## PEACH TREE BORER.—Ægeria Exitiosa.

The above cut shows the peach tree borer in the pupa state, and the male and female in the perfect state. The egg which produces the worm is deposited on the tree near the surface of the ground, where it is hatched and the insect eats into and through the bark, and burrows between the bark and wood. If the tree is wounded in any place so as to cause the exudation of gum, the insect will deposit its eggs at that point. The presence of the worm may be known by the yellowish excrement which is forced out of the tree. By this indication it may readily be found by searching with a knife, and destroyed. By keeping round each tree in spring half a peck of leached ashes or air-slacked lime, and allowing it to remain through the season, the insect will be prevented from depositing its eggs. This is frequently practiced in New Jersey with much benefit.

## HANNAH F. GOULD.

Miss Gould is a maiden lady of seventy. She is a resident of Newburyport, Mass., where she has always lived, though born in Vermont. By profession she is a writer of verses—eminently that rather than a poet. Wit and satire were the constituents of her nature, and verse was the medium of her glittering shafts. And here she presided, a queen in her realm. Caleb Cushing can, to this day, testify to the wounds he received from her quiver. She was hearty in her utterances, and pure in her style; hence popular. With the gall of her nature was also found some honey. Here is a specimen of her style: F. G.

### THE FROST.

The frost looked forth one still clear night,
And whispered, "Now I shall be out of sight,
So through the valley, and over the highth,
In silence I'll take my way.
I will not go on like that blustering train—
The wind and the snow, the hail and the rain,
Who make so much bustle and noise in vain;
But I'll be as busy as they."

Then he flew to the mountain, and powdered its crest;
He lit on the trees, and their boughs he dressed
In diamond beads; and over the breast
Of the quivering lake he spread
A coat of mail, that it need not fear
The downward point of many a spear,
That he hung on its margin, far and near,
Where a rock could rear its head.

He went to the windows of those who slept,
And over each pane, like a fairy, he crept;
Wherever he breathed, wherever he stepped,
By the light of the morn, were seen
Most beautiful things; there were flowers and trees;
There were bevies of birds, and swarms of bees;
There were cities, with temples and towers; and these
All pictured in silver sheen.

But he did one thing that was hardly fair—
He peeped in the cupboard, and finding there
That all had forgotten for him to prepare—
"Now just to set them a-thinking
I'll bite this basket of fruit," said he;
"This costly pitcher I'll burst in three;
And the glass of water they've left for me
Shall 'tchick! to tell them I'm drinking."

Her most popular poem is this:

### THE PEBBLE AND THE ACORN.

"I am a Pebble, and yield to none!"
Were the swelling words of a tiny stone;
"Nor time nor seasons can alter me;
I am abiding while ages flee.
The pelting hail, and the drizzling rain,
Have tried to soften me, long, in vain;
And the tender dew has sought to melt
Or touch my heart; but it was not felt.
There's none can tell about my birth,
For I'm as old as the big, round earth.
The children of men arise and pass
Out of the world, like the blades of grass;
And many a foot on me has trod
That's gone from sight and under the sod.
I am a Pebble! but who art thou
Rattling along from the restless bough?"

The Acorn was shocked at this rude salute,
And lay for a moment abashed and mute;
She never before had been so near
This gravelly ball, this mundane sphere;
And she felt for a time at a loss to know
How to answer a thing so coarse and low.
But to give reproof of a nobler sort
Than the angry look, or the keen retort,
At length she said, in a gentle tone:
"Since it has happened that I am thrown
From the lighter element where I grew,
Down to another so hard and new,
And beside a personage so august,
Abased, I will cover my head with dust,
And quickly retire from the sight of one
Whom time, nor season, nor storm, nor sun,
Nor the gentle dew, nor the grinding heel,
Has ever subdued, or made to feel!"
And soon in the earth she sank away
From the comfortless spot where the Pebble lay.
But it was not long ere the soil was broke
By the peering head of an infant oak,
And as it arose, and its branches spread,
The Pebble looked up, and, wondering, said;
"A modest Acorn—never to tell
What was inclosed in its simple shell!
That the pride of the forest was folded up
In the narrow space of its little cup!
And meekly to sink in the darksome earth,
Which proves that nothing could hide her worth.
And oh! how many will tread on me,
To come and admire the beautiful tree,
Whose head is towering towards the sky,
Above such a worthless thing as I!"
Useless and vain, a cumberer here,
I have been idling from year to year.
But never from this shall a vaunting word
From the humbled Pebble again be heard,
Till something without me or within,
Shall show the purpose for which I've been."
The Pebble its vow could not forget.
And it lies there wrapped in silence yet.

---

DOING GOOD.—Thousands of men breathe, move, and live—pass off the stage of life, and are heard of no more. Why? They do not a particle of good in the world, and none were blessed by them; none could point to them as the instrument of their redemption; not a word they spoke could be recalled, and so they perished; their light went out in darkness, and they were not remembered more than the insects of yesterday. Will you thus live and die, Oh! man immortal? Live for something. Do good, and leave behind you a monument of virtue that the storm of time can never destroy. Write your name in kindness, love and mercy, on the hearts of thousands you come in contact with year by year; you will never be forgotten. No; your name, your deeds will be as legible on the hearts you leave behind as the stars on the brow of evening. Good deeds will shine as the stars of heaven.

## ALLAN PERCY.

Here is a genuine touch of the romantic. It is from the pen of Mrs. Norton, of England.

It was a beauteous lady richly dressed;
Around her neck are chains of jewels rare;
A velvet mantle shrouds her snowy breast,
And a young child is softly slumbering there.
In her own arms, beneath that glowing sun,
She bears him onward to the greenwood tree;—
Is the dun heath, thou fair and thoughtless one,
The place where an Earl's son should cradled be?
Lullaby!

Though a proud Earl be father to my child,
Yet on the sward my blessed babe shall lie;
Let the winds lull him with their murmurs wild,
And toss the green boughs upward to the sky.
Well knows that Earl how long my spirit pined.
I loved a forester, glad, bold, and free;
And had I wedded as my heart inclined,
My child were cradled 'neath the greenwood tree.
Lullaby!

Slumber thou still, my innocent—mine own,
While I call back the dreams of other days:
In the deep forest I feel less alone
Than when these palace splendors mock my gaze.
Fear not! my arm shall bear thee safely back;
I need no squire, no page with bended knee,
To bear my baby through the wildwood track,
Where Allan Percy used to roam with me.
Lullaby!

Here I can sit; and while the fresh wind blows,
Waving the ringlets of thy shining hair,
Giving thy cheek a deeper tinge of rose,
I can dream dreams that comfort my despair;
I can make visions of a different home,
Such as we hoped in other days might be;
There, no proud Earl's unwelcome footsteps come—
There, Allan Percy, I am safe with thee.
Lullaby!

Thou art mine own—I'll bear thee where I list,
Far from the dull proud tower and donjon keep;
From my long hair the pearl chains I'll untwist,
And with a peasant's heart sit down and weep.
Thy glittering broidered robe, my precious one,
Changed for a simple covering shall be;
And I will dream thee Allan Percy's son,
And think poor Allan guards thy sleep with me.
Lullaby!

## THE DULLNESS OF GREAT MEN.

Descartes, the famous mathematician and philosopher, La Fontaine, celebrated for his witty fables, Buffon, the great naturalist, were all singularly deficient in the power of conversation. Marmontel, the novelist, was so dull in society that his friends said of him after an interview, "I must go and read his tales, to recompense myself for the weariness of hearing him." As to Corneille, the greatest dramatist in France, he was completely lost in society—so absent and embarrassed that he wrote of himself a witty couplet, importing that he was never intelligible but through the mouth of another. Wit on paper seems to be something different from that play of words in conversation which while it sparkles dies; for Charles II., the wittiest monarch that ever sat on the English throne, was so charmed with the humor of "Hudibras," that he caused himself to be introduced, in the character of a private gentleman, to Butler, its author. The witty king found the author a very dull companion; and was of opinion, with many others, that so stupid a fellow could never have written so clever a book. Addison, whose classic elegance has long been considered the model of style, was shy and absent in society, preserving, even before a single stranger, stiff and dignified silence. In conversation, Dante was taciturn and satirical. Gray or Alfieri seldom talked or smiled. Rosseau was remarkably trite in conversation; not a word of fancy or eloquence warmed him. Milton was unsocial and irritable when much pressed by talk of others.

## THE GARDENS OF DAMASCUS.

Beaufort's Eastern Shrines gives the following interesting description:—

A new ride can be taken every day for four months among the charming groves, fields, and orchards, with pleasant looking villages here and there about the city of Damascus. A net work of little canals and channels of water extends over the cultivated plain; cooling the air, and soothing the ear with the pleasant murmuring of the streamlets to which all the glorious verdure is owing; miles and miles of these tiny rivers are spread over the ground, every one coming originally from Barrada, the Abana of Scripture, which Naaman considered with natural pride, as fine a river as any in Israel. The Pharpar, or, as it is now called, the Awag, is not so long as the Barrada, and contains scarcely a third as much water. It rises on Mount Hermon, and both rivers after passing Damascus are lost in the marshes on the sandy desert beyond. There are many varieties of trees in the gardens of Damascus, but the most numerous are the apricots, the dried fruit of which forms so very large a part of its commerce. The apricots are either dried in the sun and then pressed in slight wooden boxes, or else they are stoned and mashed into a thick paste, which is dried in masses a yard or two long, and is exported in large rolls looking like brown leather. It is said to be a lovely sight to look over the plains of Damascus in the spring, when the innumerable apricots are in flower—the effect being of light snow resting on the trees; but many persons think it more striking when the fruit is just ripe; then the trees glow as if illuminated with thousands of tiny lamps hung among the branches. One of the pleasantest afternoon rides was to the village of Jobah, at about an hour's distance from the city, where it lies hidden among walnut groves. This place has been, time out of mind, held sacred by both the Jew and the Moslem; and there is a very ancient synagogue built over the cave, in which it is believed Elijah hid himself from the persecutors of Jezebel. In the centre of the synagogue there is a space railed off, where Elijah is said to have anointed Hazael king.

If pride leads the van, poverty brings up the rear.

## COFFEE SUBSTITUTES.

The love of coffee is an acquired taste. Perhaps nine-tenths of the families using it "burn" it almost to a coal, so that, in reality, any other burnt bitter would answer quite as well. In fact, multitudes in the far West, removed from markets, have become accustomed to use burnt bread-crust as a substitute, which certainly is not injurious, but it is a known fact that a cup of some mild, hot drink at meals is a positive benefit, while a glass of the purest cold water is as certainly an injury, especially to invalids and to all who do not have robust health.

The following substitutes for coffee have been collected, in all of which it is suggested, first, that the substitute be mixed with the genuine article, half-and-half; second, that in order to know what you are really drinking, roast and grind your own coffee. In this way only can you know that you are not imposed upon, or may not be drinking some cheap material, either filthy or poisonous.

1. It is said that three parts of Rio, with two parts of Old Government Java, well prepared, is quite as good, if not superior, to that made of the latter alone.

2. *Wheat Coffee.*—Wheat coffee, made of a mixture of eight quarts of wheat to one pound of real coffee, is said to afford a beverage quite as agreeable as the unadulterated Rio, besides being much more wholesome.

3. *Rye Coffee.*—Take a peck of rye and cover it with water, let it steep or boil until the grain swells or commences to burst, then drain or dry it. Roast to a deep brown color and prepare as other coffee, allowing twice the time for boiling. Served with boiled milk. Wheat coffee probably could be made the same way.

4. *Another.*—Take some rye; first scald it; second, dry it; third, brown it, and then mix it —one-third coffee and two-thirds rye—and then you will have as good a cup of coffee as you ever drank.

5. *Sweet Potato Coffee.*—Take sweet potatoes, cut them fine enough to dry conveniently, and when dried, grind in a coffee mill; dry them by the fire or stove, at this season of the year, or by the sun when that will do it; grind and use one and a half teacupsful for six persons, or mixed with coffee in such proportions as you like. Some omit half of the coffee, some more.

6. *Barley Coffee.*—Take common barley, or the skinless, if it can be obtained, roast as you would coffee, and mix in such proportion as suits your taste. It is very good.

7. *Pea Coffee.*—It is probably known to many that a very large per cent. of the ground coffee sold at the stores is common field peas, roasted and ground with the coffee. There are hundreds of thousands of bushels of peas annually used for that purpose. Those who are in the habit of purchasing ground coffee can do better to buy their own peas, burn and grind them, and mix to suit themselves.

8. *Carrot Coffee.*—It is recommended by an exchange. Cut up, dry and grind, and mix with coffee in quantities to suit the taste.

9. *Chesnut Coffee.*—Chesnuts, also, are said to make excellent coffee.

10 Dandelion root, dried and slightly scorched, never burned.

11. *Chicory Coffee.*—Equal weights of chicory and coffee, dried and roasted in the usual manner. The chicory root is raised as easily as carrots, and in exactly the same manner. To prepare the root, wash it clean, slice it lengthwise in four to six pieces, according to size, cut in two-inch lengths, dry and keep in a dry place until wanted. Chicory is largely used to adulterate coffee in this country, and especially in Europe, twenty-five millions of pounds being used in England and France alone.

12. *Excelsior Coffee.*—(our own)—Half a cup of pure, new, farm house milk, and while almost boiling hot, add to it as much boiling water, and when sweetened to suit, call it "coffee," and drink it down.—[*Hall's Journal.*

## THE BEST BED.

Of the eight pounds which a man eats and drinks in a day, it is thought that not less than five pounds leaves his body through the skin. And of these five pounds a considerable percentage escapes during the night, while he is in bed. The larger part of this is water; but in addition, there is much effete and poisonous matter. This being in great part gaseous in form, permeates every part of the bed. Thus, all parts of the bed, mattrass, blankets, as well as sheets, soon become foul, and need purification. The mattrass needs this renovation quite as much as the sheets.

To allow the sheets to be used without washing or changing, three or six months would be regarded as bad housekeeping; but I insist, if a thin sheet can absorb enough of the poisonous excretions of the body to make it unfit for use in a few days, a thick mattrass which can absorb and retain a thousand times as much of these poisonous excretions, needs to be purified as often certainly as once in three months.

A sheet can be washed; a mattrass cannot be renovated in this way. Indeed there is no other way of cleansing a mattrass but by steaming it, or picking it to pieces, and thus in fragments exposing it to the direct rays of the sun. As these processes are scarcely practicable, with any of the ordinary mattrasses, I am decidedly of the opinion that the good old-fashioned straw bed, which can every three months be changed for fresh straw, and the tick be washed, is the sweetest and healthiest of beds.

If, in the winter season, the porousness of the straw bed makes it a little uncomfortable, spread over it a comforter or two woolen blankets, which should be washed as often as every two weeks. With this arrangement, if you wash all the bed covering as often as once in two or three weeks, you will have a delightful, healthy bed.

Now, if you leave the bed to air, with open windows during the day and not make it up for the night before evening, you will have added greatly to the sweetness of your rest, and in consequence to the tone of your health.—[*Dr. D. Lewis.*

---

Durability of Timber.—The following instances show how extremely durable wood becomes when kept immersed in water. The piles under London bridge have been driven six hundred and fifty years. On examination, in 1756, they were found to be but little decayed; they were principally of elm. Old Savory Place, in London, was built about the same time, *i. e.*, about six hundred and fifty years ago, and upon recent examination, the wooden piles, consisting of oak, elm, beech and chesnut, were found to be perfectly sound.

But the most striking example of the durability of timber in a wet state, is afforded in the piles of the bridge built by the Emperor Trajan, over the Danube. One of the piles was taken up, and found to be petrified on the surface to the depth of about three-fourths of an inch; beneath this the rest of the wood was not different from its original state, though *sixteen hundred years* had elapsed since it was driven!

---

Cut off the Back Legs of Your Chairs.—I will tell you a secret worth knowing. A thousand things, not worth half as much, have been patented and elevated into a business. It is this. If you cut off the back legs of your chairs, so that the back part of the seat shall be two inches lower than the front part, it will greatly relieve the fatigue of sitting, and keep your spine in much better shape. The principal fatigue in sitting, comes from your sliding forward, and thus straining the ligaments and muscles in the small of the back. The expedient I have advised will obviate this tendency, and, as I have suggested, add greatly to the comfort and healthfulness of the sitting posture. The front edge of a chair should not be more than fifteen inches high for the average man nor more than fourteen for the average woman. The average chair is now seventeen inches high, for all, which no amount of slanting in the seat can make comfortable.—[*Lewis' Gymnasium.*

---

Milk can be kept with all the cream in it, as when first drawn from the cow. You all know that if you can prevent the cream from rising, the milk will be more palatable and healthy with the particles of cream mixed through it, than milk fresh from the cow, with the fresh taste and odor. To prepare milk in this way take it warm from the cow, set it in a cool place, and stir it continually until all the animal heat is out and no cream will rise after that operation. Try it and see how much it will be improved.

---

## NECESSITY.

No claims lay I unto the art
Which makes a poet's name divine;
In idle moods I weave my rhyme,
Nor hope to reach a single heart.

Where crimson blooms bend down the boughs,
And lush and green the grasses grow,
I see the brown-thrush come and go,
And hear him chant his love-sweet vows.

I know he cannot help but trill
His golden songs upon the air;
The broad earth is so grand and fair,
He cannot help it if he will.

And so I sing these useless songs,
Although no rare and golden thought,
Upon the tangled web is wrought
That to the poet's work belongs.

—[R. A. Oakes, in Knickerbocker.

R. A. Oakes's philosophy is a pretty one, making the birds his exemplars. This may do for music: it will not do for poetry. Thought is the chief element in poetry as in all literature. Out of it must flow music—which Emerson says is inherent in thought—force, tone, and whatever the thought is distinguished for. Mere music in verse is empty air—artificial—while a bird's warble is natural—the *bird's way* of expressing itself. To illustrate the superiority of thought over sound, supply thought in a bird's song: in other words, imagine a bird talking, which doubtless is the meaning of its warble, could we but understand it. Thought is beautiful, powerful, all-important, reflected in the fine arts; detected even in music, when genuine. It is the body, as music is the soul, and emotion the sensitive part of our being. F. G.

---

Take this remark from Richard—poor and lame; whate'er begins in anger ends in shame.

Law, like cobwebs, catches small flies; great ones break through before your eyes.

# Domestic Department.

RICE PUDDING.—One quart milk, 1 cup rice, 4 eggs—yolks beaten as custards—baked. The whites as frosting.

SPONGE PUDDING.—One pound sugar, 1 pound flour, 1 dozen eggs well beaten. Steam 2 hours.

HARRISON CAKE.—Two cups of molasses, 1 cup of butter, 1 cup sugar, 1 cup sour cream, 1 teaspoonful cloves, 1 of saleratus, 2 teacups currants. Butter melted with molasses and poured into 3 or 4 cups of flour, then add sugar and half the cream; put in the rest of the cream when you have dissolved the saleratus in it. Then take enough more flour to make it about as thick as cup cakes; stir it 10 or 15 minutes, add the currants, and bake it in pans like cup cake.

CREAM CAKES—Half pound butter, three-quarters of a pound of flour, 1 pint water; boil your butter and water together, and while boiling stir in the flour; then let it cool, and add ten eggs—the whites beaten separately—half teaspoonful soda; grease your pans well, drop a large spoonful, leaving space enough for them to rise. Bake about 45 minutes in a moderate oven.

CHEAP CAKE.—Two cups white sugar, 3 of flour, a piece of butter size of an egg, 2 eggs, 1 cup of milk, 1 teaspoonful cream tartar, 1 do. saleratus, both thrown on the butter, sugar and eggs; then add the milk, then the flour, stir quickly, spice to taste. Sift a little sugar on the cake and bake immediately.

BERWICK SPONGE CAKE.—Beat 6 eggs two minutes, add 3 cups sugar, beat 5 minutes; 2 cups flour with 2 very small teaspoonsful cream tartar, beat 1 minute; 1 cup cold water with a small teaspoonful soda; beat 1 minute; half the rind and juice of a lemon, 2 cups flour, a bit of salt. Bake 20 minutes.

BREAKFAST CAKE, No. 3.—One pint milk, 2 or 3 eggs, 2 teaspoonsful cream tartar, 1 of soda, flour sufficient to roll out. Roll quite thin, and cut into round, square, or diamond shape, according to fancy. Fry in hot lard like doughnuts. To be eaten with butter.

MIXTURE FOR THE CREAM CAKES.—Two cups sugar, 1 cup flour, 4 eggs; the eggs, sugar and flour to be well beaten together; 1 quart of milk boiled, and while boiling stir in the eggs, sugar and flour. Let it cool, and flavor; open at the side and put the cream in.

CREAM TARTAR CAKE.—Half cup butter, 2 cups sugar, 3½ cups flour, 8 eggs, 2 teaspoonsful cream tartar, 1 teaspoonful soda, dissolved in 1 teacup of milk, 1 tablespoonful flavoring; stir together quickly, and bake in a quick oven.

BREAKFAST CAKE, No. 1.—One pint of milk, 3 eggs, half cup melted butter; stir in flour sufficient to make a thin batter. Bake in cups. This will rise a great deal, and the cups should be less than half full when put into the oven.

TEA CAKE.—One cup of sugar, 1 egg, a lump of butter as large as half an egg, 1 cup of sweet milk, 1 pint flour, 1 teaspoonful cream tartar, half teaspoonful soda. By using sour milk the cream tartar may be omitted.

ROXBURY CAKE.—Two pounds or 4 coffee cups of flour, 1½ pounds or 3 coffee cups of sugar, three quarters pound or 1 coffee cup of butter, 2 pounds of currants, 1 pint of milk, 6 eggs, 1 teaspoonful saleratus.

GOLD CAKE.—One cup butter, 2 of sugar, 3 of flour, 8 eggs (the yolks), half cup milk, teaspoonful cream tartar, half teaspoonful soda, nutmeg; mix the flour and cream tartar together.

SILVER CAKE—Made the same way, only take the whites instead of the yolks.

CREAM CAKES.—Four cups of flour, 3 of sugar, 2 of butter, 1 of cream, 5 eggs, 1 teaspoonful essence lemon, 1 of saleratus dissolved in a little milk; beat well, bake in a quick oven.

MOUNTAIN CAKE.—One cup of sugar, 2 eggs, half cup butter, half cup of milk or water, 2 cups flour, 1 teaspoonful cream tartar, half teaspoonful of soda, nutmeg.

CUP CAKE.—Three eggs, 1 cup butter, 1½ cup sugar, half cup molasses, 1 cup milk, 4 cups flour, 1 teaspoonful saleratus; spice to taste.

DILLINGHAM CAKE.—One cup butter, 1 of milk, 3 cups of sugar, 5 of flour, 4 eggs, spice to your taste. Bake in small or large tins.

PLAIN CAKE.—Four cups flour, 2 of sugar, 2 of sour milk, 1 tablespoonful of butter, 1 do. saleratus, nutmeg, and raisins.

CURRANT CAKE.—One cup of butter, 3 eggs, 1 cup of water or milk, half teaspoonful of saleratus, nutmeg, cup of currants.

RAISED CAKE.—Three cups of dough, 3 cups of sugar, 1 cup butter, 3 eggs, 1 nutmeg, and raisins, 1 teaspoonful of soda.

PAN CAKES.—One pint milk, 4 eggs, half teaspoonful saleratus, a little salt, stiff enough for batter; serve with sauce.

GRAHAM CAKE.—Two cups of sour milk, 2 cups sugar, 1 nutmeg, 2 teaspoonsful saleratus.

TO PICKLE GREEN TOMATOES.—To one peck of tomatoes add a handful of salt and enough water to cover them. Let them remain in this twenty-four hours. Put them in a kettle (porcelain lined is the best), fill up with vinegar, and set upon the stove until the vinegar begins to boil, and then set away to cool. When cold, set the kettle again upon the stove and bring it to the boiling point. Then skim the tomatoes and put them into a jar, fill up with some new, cold vinegar, and flavor with mustard seed, allspice, cloves, &c.

The same vinegar first used will do to scald more tomatoes in.

QUINCES FOR THE TEA TABLE.—Bake ripe quinces thoroughly, when cold strip off the skins, place them in a glass dish and sprinkle with white sugar and serve them with cream. They make a fine looking dish for the tea-table, and a more luscious and inexpensive one than the same fruit made into sweetmeats. Those who once taste the fruit thus prepared will probably desire to store away a few bushels in the fall to use in the above manner.

PEARS FOR THE TEA TABLE.—Take ripe pears and wipe them carefully; place a layer, stem upward, in a stone jar, sprinkle over sugar; then set in another layer of pears, and so on until the jar is filled. To every gallon, put in one and a half pints of water. Cover the top of the jar with pie crust, and set it in a slow oven for two hours.

TOMATOES FOR CHILDREN.—There is no better remedy for derangement of the bowels in children, while teething, than stewed tomatoes, fed to them plentifully; care being taken to keep the child's extremities warm. Be careful to cover its neck and arms, especially of an evening; give it crushed ice to assuage thirst, if possible, rather than give it water; avoid cordials, as they only produce fever. The tomatoes ought to be ripe and fresh, though the vegetable preserved in cans has been used with great success.

INDIAN PUDDING.—One-half pint meal to one quart of milk.

# Editor's Table.

## Trial Subscribers at Half Price.

In order that the public may become better acquainted with the merits of the "Valley Farmer," we have determined to make the following liberal offer. We will send all the numbers for the present year (1862) at half price—only fifty cents. Our present subscribers will confer a favor by making known to their neighbors and friends these very liberal terms. We are satisfied that those who read the "Farmer" one year will never consent to be without it hereafter—hence our proposition.

---

Fair of the Ills. State Horticultural Society.—The Fair of this Society will be held in Chicago. It will open on Monday, the 8th of September, and continue during the week. Competition open to the whole North-west!

This exhibition will undoubtedly be by far the best ever had by the Society. A splendid list of premiums is offered for the products of the Orchard, the Garden and the Greenhouse. Discussions will be held every evening.

The Great Horse Exhibition comes off at Chicago at the same time, and parties wishing to visit the Garden City will rarely find so opportune a time. We advise all to go who can. Fare on rail roads reduced to a little more than half price.

---

Fair at Belleville.—The Fair of the St. Clair Co., Ills., Agl. Society will be held at our neighboring city of Belleville, on the 7th, 8th, 9th and 10th of October. We have received a copy of the Premium List, and see that liberal premiums are offered for all articles usually exhibited on such occasions. We hope many of our St. Louis citizens may attend, and can promise that they will be highly pleased. We hope the citizens of St. Clair County will turn out, young and old, male and female, and have a real, live Exhibition, such as they always have had heretofore.

St. Clair County is one of the richest and best in the State. The farmers having the advantage of such markets as Belleville and St. Louis are highly favored, and most of them are not only independent but wealthy. One of the best County Fairs in the State of Illinois should be held at Belleville, and we hope and believe it will be. We expect to be present to take many of our old patrons by the hand.

---

Warren County Fair.—The Second Annual Exhibition of the Warren County Agricultural and Mechanical Association will be held at the Fair Grounds of the Society, near Warrenton, Warren county, Mo., on Tuesday, Wednesday, Thursday and Friday, September 30th, and October 1st, 2nd and 3d, 1862.

Competition invited from all parts of the State.

The North Missouri Railroad will carry Passengers and Freight to and from the Exhibition for half price.

R. E. Pleasants, Secretary.

## Planting Osage Orange Hedges in the Fall.

N. J. Colman: Dear Sir—Please inform me at your earliest convenience, if Fall Planting for Osage Orange is advisable—if your experience is justifiable in advising; if not, please make the inquiry from those that you know are reliable. Our springs are generally late, and moderate farmers can't devote the time to this most necessary, cheap and desirable fence.

T. J. Hardin.

St. Louis, Aug. 6, 1862.

---

Answer.—We have never known the plants to be set in the fall. The plant is rather tender and would be more subject to be winter killed if transplanted in the fall. The ground would become packed very hard by the heavy winter rains, and the plants without considerable attention would not make as much growth during the season. The plants would also be subject to be heaved out by the thawing and freezing constantly going on, and particularly if the ground in which they were planted was inclined to be wet. But if the soil in which they are planted is not wet, and the plants are heavily mulched after being set, we have no doubt fall planting is as good or better than spring planting.

---

The City University.—Undoubtedly, one of the best institutions in St. Louis for the education of boys, is the City University. It is under the control of Edward Wyman, the most popular teacher in the West. The mere announcement that Mr. Wyman has charge of this institution is sufficient to induce every one having sons to educate to put them under his charge. Many of our best business men in St. Louis are graduates of Mr. Wyman's school in former years. Mr. W. gives his pupils a practical education. He educates them for the duties and business of life. He also pays as much attention to their morals and their personal deportment as he does to their intellectual advancement. His object is to educate the whole man, mentally, morally and physically; to have a sound mind in a sound body; and to have sound morals and a polite, polished deportment adorning all. We make these remarks because we feel the importance of having good teachers for our sons, and when we have those who have proved themselves to be such we take great pleasure in recommending them, and we feel we are conferring a greater favor upon patrons than we are upon the instructor. The next next term of the City University will commence on Monday, Sept. 1st.

---

Crops in Lyon Co. Kansas.—A private letter reports that an abundant crop of wheat has been harvested in this county the present season; admitted to be more than in any other county in the State; and corn and potatoes promise a good yield. Heavy showers have fallen within the last few days (July 29) which will complete the crop.

☞ The next Fair of the Randolph County (Ills.) Agricultural Society will be held at Sparta, on the 24th, 25th, 26th and 27th of October. This fair will be worth attending, and all who can visit it should do so. There will be spirited competition in all departments.

PREPARATION OF SEED WHEAT.—Farmers are not careful enough in the preparation of their seed wheat. It should be run through the fanning mill at least three times slowly, turning the mill fast enough to blow out every grain of chess. If the light, imperfect seeds of wheat are blown away, so much the better.

The grain should then be washed in a strong brine, pouring it in the brine slowly so that every kernel may be wet, and the smut balls and other light stuff will rise on the surface. It is not necessary or desirable that the grain should be soaked long, as the germ of the kernel may thereby be injured or destroyed. After careful washing, dry it with slaked lime, mixing it thoroughly with the wheat on the barn floor. A little care in preparing wheat for seeding, will amply reward one at the next harvest.

CONTENTS OF NO. 9.

*Agricultural.*

Essay on the Cultivation of Field Crops and Preparation of Soils, - - - 257
A Weekly Valley Farmer; Tilling, - 260
Poultry Houses; The Grain Weevil, - 261
Independence, - - - - 262
Disposal of Bones; Air-tight Preservation, 263
Lime as a Fertilizer; Irrigation, - - 264
Spirit of the Agricultural Press, - - 265
To Preserve Stakes and Posts; How to Make Barnyards; Saving Seed Corn, - - 266
A Guard Against Drouth; Wintering Bees, 267

*Stock Department.*

Veterinary Department---Sweeny, or Wasting of Muscles, - - - - 268
Western Reserve Cheese; Hog Cholera; Packing Butter, - - - - - 270
Fistulous Withers in Horses, - - 271
Horse Distemper; The Fastest Trotting - 272

*Horticultural.*

The Kirkbridge White Apple; Preserving Dahlia Tubers - - - - - 273
Pomological Terms Explained; Pruning Trees; Meramec Horticultural Society, - 274
Mo. State Horticultural Society, - 275
California Gardens, - - - - 278
Soil for Blackberries; the Paeonia Family, 279
Exterminating Insects; Deterding's Early Red Apple, - - - - - 280
Sap Grafting; Peach Tree Borer, - - 281

*Home Circle.*

Hannah F. Gould; Doing Good, - - 282
Allan Percy; Dulness of Great Men; Gardens of Damascus, - - - - 283
Coffee Substitutes; The Best Bed, - 284
Durability of Timber; Cut Off the Back Legs of Your Chairs; Necessity, - - - 285
Domestic Receipts, - - - 286

*Editor's Table.*

Fair of the Ill. State Hort. Soc.; Fair at Belleville; Warren County Fair; Planting Osage Orange Hedges in the Fall; City University; Crops in Lyon Co. Kansas, - - 287
Fair of Randolph Co. (Ill.) Ag. Soc.; Richland Co. (Ill.) Ag. Fair; Preparation of Seed Wheat, - - - - - 288

THE RICHLAND CO. (ILL.) AGL. FAIR will be held at Olney on the 24th and 25th Sept. inst. Quite a large list of Premiums is offered, and there should be a spirited competition and a large attendance.

TRIOMPHE DE GAND STRAWBERRY — This unrivalled strawberry has fully sustained its reputation the present season. Our stock of plants is unequalled anywhere. Send for Circular.
sep1t J. KNOX, Box 155, Pittsburgh, Pa

GRAPE VINES—Our stock of DELAWARE, CONCORD, HARTFORD PROLIFIC, DIANA, ELSINGBURG, HERBEMONT, CREVELING, CUYOHOGO, and all the other new and valuable kinds, is exceedingly large and fine this season, which we offer this fall at very low rates. Send for Circular. J. KNOX,
sep1t Box 155, Pittsburgh, Pa

GEO. H. DADD,
VETERINARY SURGEON,
Office—At the Stable of Glasgow & Harkness,
LOCUST STREET, ST. LOUIS, MO.
REFERENCES:
Thos. Lough, Esq., Agent Adams' Express Co.
H. C. Creveling, Sup't of Transfer Co.
N. J. Colman, Editor "Valley Farmer."
Messrs. Glasgow & Harkness. my'62

AGENTS WANTED!—I wish a number of good reliable men to sell Fruit and Ornamental Trees, &c., from my Nurseries, on Commission, or I will furnish at wholesale, at low rates. Send, and get Catalogue and sample of Order Books.
H. A. ENSIGN, Proprietor,
july'62] Ohio Nurseries, Toledo, Ohio.

GEO. HUSMANN. C. C. MANWARING.
HERMANN NURSERY.
HUSMANN & MANWARING, Proprietors,
*HERMANN, MO.*

Having much increased our business, we take pleasure in calling the attention of our friends, and the public generally, to our large and complete assortment of Fruit and Ornamental Trees and Shrubs, comprising the choicest varieties of

Apples, Pears, standard and dwarf; Cherries, standard and dwarf; Peaches, Plums, Apricots, Almonds, Quinces, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Blackberries, Shade and Ornamental Trees and Shrubs, Evergreens, Vines, and Creepers, Roses, Dahlias, and other plants, Scions of Fruit Trees, Cuttings and Seedlings of Ornamental Trees, Shrubs, &c.

Most of the varieties were tested here and have proved successful in our soil and climate, and all are warranted true to name.

We would call the special attention of Grape Growers to our large assortment of native hardy grapes, comprising over sixty of the choicest varieties, which we have spared no pains nor cost to procure from the most reliable sources. Many of them have been tested here, and all will be tested in the open vineyard, and we shall recommend none until we have found them successful. This we may now confidently do with Norton's Virginia, Herbemont, Missouri and Concord, they having been tested beyond a doubt.

Descriptive Catalogues sent gratis to all applicants.

Orders directed to us personally, or to our local agents, will be promptly and carefully filled.

HUSMANN & MANWARING.
Hermann, Sept. 1859-tf.